Delaware Health
And Social Services

DIVISION OF MANAGEMENT SERVICES

PROCUREMENT

DATE: August 26, 2014

HSS 14 040

WIC ELECTRONIC BENEFIT TRANSFER (EBT) IMPLEMENTATION AND SUPPORT SERVICES PROJECT

FOR

DIVISION OF PUBLIC HEALTH

Date Due: October 22, 2014

11:30AM

ATTACHMENT # 4

Please Note:

THE ATTACHED SHEETS HEREBY BECOME A PART OF THE ABOVE MENTIONED BID.

WIC EBT Planning and Feasibility Study

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WIC EBT Planning and Feasibility Study

Prepared for the Delaware Department of Health and Social Services, WIC Program

10/28/2011
Prepared by Chaddsford Planning Associates, LLC
Contract 11-127, August 27, 2010

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Delaware Department of Health and Social Services WIC EBT Feasibility Study and Cost-Benefit Analysis

Introduction

In 2009, the Delaware Department of Health and Social Services received a grant from the U.S Department of Agriculture (USDA) Food and Nutrition Services (FNS) to conduct feasibility and planning activities for WIC EBT. In February 2010 DHSS accepted proposals from qualified contractors to help conduct the feasibility study. As a result of that competitive procurement DHSS selected Chaddsford Planning Associates, LLC through competitive procurement, as its WIC EBT feasibility and planning contractor with Burger, Carroll & Associates, Inc. serving as sub-contractor.

This Feasibility and Cost Benefit Study Report was produced by Chaddsford Planning and its subcontractor Burger, Carroll & Associates in accordance with DHSS specifications and in a manner compliant with the requirements for such documents of the U.S. Department of Agriculture's Food and Nutrition Service (FNS), the federal sponsor of the WIC Program.

Chaddsford Planning and BCA gratefully acknowledge the assistance and commitment to this work product by the DHSS Project Steering Committee (PSC), including WIC Director Joanne White, feasibility project manager Carolyn Sudler, WIC vendor manager Tom Mullaney, and Linda Weller of the Department's Information Resources Management unit, Valerie Lane of the Department's Information Management Services unit, and Rob Surguy of the WIC program.

Finally, we would like to thank the contribution of the staff of FNS' headquarters and regional office for their guidance and contribution in this effort.

This report is being submitted as required by Contract Number 11-127 between Chaddsford Planning Associates, LLC and the Delaware Department of Health and Social Services, executed on August 27, 2010.

The Delaware WIC Program

The Delaware Department of Health and Social Services administers its Supplemental Nutrition Program for Women, Infants and Children (WIC) with funding and guidance from the USDA Food and Nutrition Service (FNS). WIC is a nutrition intervention program for pregnant, breast-feeding, and postpartum women, infants, and children up to age five who are identified as being medically or nutritionally at risk.

WIC provides three main benefits to program participants: nutrition screening and education, access to health care, and a monthly package of supplemental foods. The supplemental foods are high in nutrients such as iron, calcium, and vitamins A and D that tend to be deficient in the diets of the target

population. WIC has been shown to have a positive impact on birth outcomes and a number of maternal and child health indices.

In December 2010 Congress passed The Healthy, Hunger-Free Kids Act of 2010 (P.L. 111-296). Included in the law are several provisions related to Electronic Benefit Transfer (EBT), including a mandate that all states implement EBT systems by October 1, 2020 (Section 352(d)).

Delaware WIC is currently in the process of replacing its aging legacy Management Information System (MIS). DHSS has chosen, with the concurrence of FNS, to transfer the MIS system currently used in Maryland, and known as WIC on the Web, or WOW. This transfer is an important issue in defining EBT feasibility and affordability for Delaware.

The Delaware WIC EBT feasibility and cost study has determined that conversion from paper-based WIC food delivery to an Electronic Benefit Transfer (EBT) system, or WIC EBT, could be affordable and would provide significant benefits including greater client convenience, reduced food delivery costs, and a streamlined retailer settlement process.

In the course of the study the PSC considered six different platform and operational alternatives. Two of these were quickly dismissed because there was no evidence that either could be affordable or feasible.[1] We developed cost models for four different implementation scenarios, and examined the findings from seven (7) WIC EBT implementations. We also completed a population survey and data collection initiative to determine retailer interest and readiness to participate in EBT, achieving 100 percent participation in the survey.

The study determined that an online WIC EBT system, outsourced to a third party, would be affordable, comply with federal laws and regulations, and fit well within the context of Delaware WIC's operations and capacity. In this solution the EBT system is owned and operated by a third party EBT service provider. Delaware would purchase services from this provider on a cost-per-case-month (CPCM) basis. The other three alternatives were deemed unaffordable because they would require operational capacity and resources that are currently, and for the foreseeable future, beyond the reach of the Delaware WIC program. The rationale and justification for these conclusions are presented in detail in the FNS-mandated *Cost Affordability Study*, which has been submitted, along with the *Cost Affordability Workbook* as Deliverable 15, and is incorporated into this document by reference.

As a part of Delaware's commitment to implementing a WIC EBT solution that is in full compliance with all relevant federal and state laws and standards, the state has elected to implement a WIC EBT solution in a similar manner as Michigan and Nevada/ITCN did, attempting to contract with a vendor that already

[1] Neither the outsourced smartcard concept or a SA-hosted online solution has ever been tried before; therefore they were rejected as not feasible for Delaware would lacks the capacity to pioneer such concepts. This resource issues is discussed at length below in *Recommendations* section.

supplies SNAP EBT services in the state. Both the Michigan and Nevada/ITCN systems are fully compliant with applicable FNS guidance and use industry-standard technology to deliver food benefits

The system will be implemented with the capability to use data downloaded from the National Universal Product Code Database (as required in P.L. 111-296). DHSS and its contractors will work with FNS to ensure compliance with the Universal Interface, Operating Rules and Technical Implementation Guide.

DHSS will work with the state's current financial services contractor to provide settlement hosting and banking services that are compatible with current processes and will be familiar to our WIC vendor community.

The online, outsourced solution has three key advantages for Delaware WIC:

1. ***Affordability.*** It is affordable under the state's current NSA funding formula
2. ***Capacity***. It fits within the state's current technical and operational capacity
3. ***Resources.*** It can be implemented with the state's current resources

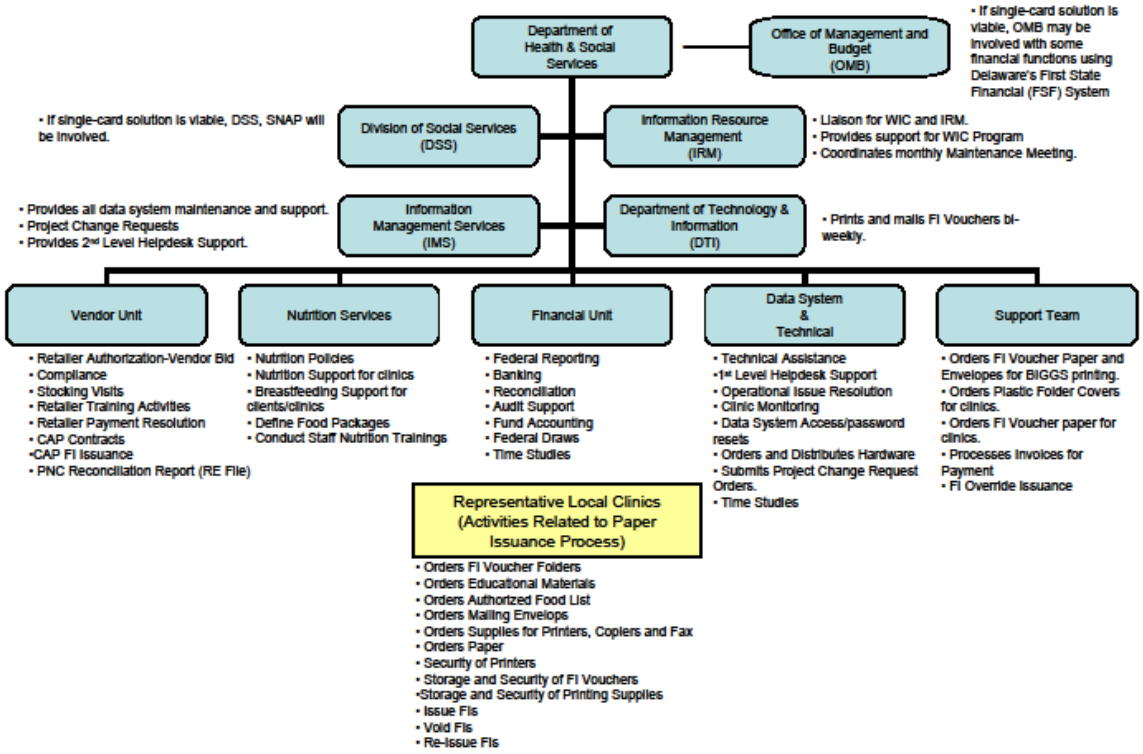
The development and implementation of this solution is projected to cost $2.6 million. This includes the reimbursement costs for retail integration. The high percentage of existing point-of-sale (POS) platforms compatible of integrating with this solution will enable a statewide implementation less than a year after completion of a successful pilot.

Implementation of this solution will allow our State to be one of the first to implement EBT in the wake of the mandate and will provide assistance to other states as they do the same.

How WIC Currently Operates in Delaware

The Delaware WIC program is operated by the State's Department of Health and Social Services. Exhibit 1 depicts the program's structure for transitioning to EBT within the DHSS.

Exhibit 1: Delaware WIC Organizational Structure



The Delaware program currently serves 23, 185 participants per month. The Delaware WIC program profile is similar to the nationwide profile. Delaware WIC currently has five participant types. The program uses an integrated health and social services workflow. This is centered on a system named the ***Master Client Index***, or MCI. The MCI in Delaware is a hub of information about constituents served in the state's Health and Social Services program network. It collects name, address, phone, (and other contact information), and programs participated in. All WIC participants also have an MCI Record ID. Currently, the WIC system makes the participant ID and the MCI Record ID the same number.

Whenever a WIC participant or a prospective WIC participant comes into a clinic for services, the WIC system queries the MCI database in real time and checks to see if the participant is registered in other programs (adjunct eligibility) and to determine if the demographic information is accurate.

WIC food benefits in Delaware are delivered using a system of paper food instruments (FIs), locally called vouchers. Client eligibility for the program is determined at one of eleven local clinics around the state. These are operated within DHSS service centers, which provide a variety of health and social services, including WIC.

Eligible clients receive FIs during their clinic visits and use the vouchers to shop at 88 WIC vendors throughout the state. These are a mix of national chain supermarkets, regional supermarket chains and locally owned-and-operated (O&O) stores.

Delaware uses a unique "vendor bid contract" to authorize retailers and to contain the cost of approved food items. Under the vendor contract, retailers must apply every three years to participate in the program. As part of the application process, they must bid their price for each item on the approved food list (APL). The state selects a number the vendors that will help the program meet its cost containment goals and provide convenient shopping for clients based on client redemption patterns.

Settlement of the FIs begins when vendors deposit the negotiated FIs in their bank accounts. The FIs are cleared through the Federal Reserve Bank of Philadelphia through PNC Bank, the WIC fiscal agent. When vendors sell WIC approved food items at prices higher than the contract bid prices, a condition called an "overage," the WIC program initiates a back-end process to collect the overage from the appropriate retailer.

The Delaware WIC program currently uses a legacy MIS system. However, it will be migrating to the "WIC on the Web" data system known as WOW. WOW is an advanced web-based WIC information system which takes advantage of modern web-based technology by using a centralized database and an intuitive web-based user interface. The web-based front-end allows the system to be used by authorized WIC staff from any computer with internet access, offering new opportunities to perform WIC services in hospitals, doctor's offices, and other currently unserviceable sites. The system is described in more detail below. The WOW software, including the source code, is owned by the state of Maryland.

How Other States Are Migrating to EBT

WIC EBT is currently operational in seven states[2] and four independent Tribal Organizations as shown in the following table.

Exhibit 2: Current Online and Offline WIC EBT Activity

Online	Offline
Intertribal Council of Nevada	Cherokee Nation (Oklahoma)
Kentucky	Isleta Pueblo (New Mexico
Michigan	New Mexico
Nevada	Texas
Chickasaw Nation	Wyoming
Vermont (CVB only)	

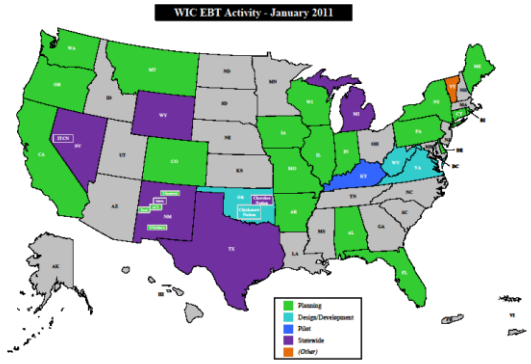
[2] Vermont currently uses the SNAP card for redeeming cash value vouchers electronically.

The lesson learned by these projects, as well as earlier attempts at EBT, is that EBT can be successfully and affordably implemented in WIC programs, both large and small, whether employing online or offline solutions.

FNS remains neutral regarding the choice of EBT platform for WIC. It is thus left to the state agency to establish the business case and demonstrate the affordability of its chosen solution.
Currently about half the states, territories and Independent Tribal Organizations are in some phase of planning, design, development, implementation or operation of WIC EBT.

The following exhibit details the current state of WIC EBT deployment.

Exhibit 3: Current WIC EBT Activity



Significant Issues to Address when Migrating to EBT

Planning for Delaware WIC EBT was well underway in 2010 when Congress passed the Healthy, Hunger-Free Kids Act of 2010 (P.L. 111-296) which included several provisions related to Electronic Benefit Transfer (EBT), including a mandate that all states implement EBT systems by October 1, 2020. In response the project shifted fully away from a "what-if" to a specific "how-to" focus.

Of all the "how to" issues a state agency like Delaware faces the foremost is how to make the implementation and operation of EBT affordable. State agencies must choose an EBT path that is sustainable. That is, EBT must be affordable within the constraints of its NSA grant.

There are a number of other issues that must be addressed when migrating to EBT. These include:

- ***Capacity***. The state agency undertaking the migration to EBT must determine its own capacity to implement and operate EBT. The existing WIC EBT projects, as well as the projects that have gone before them, provide ample information on organizational and technological capacity that is required to successfully operate EBT. A state agency must consider this information before making a decision.
- ***Resources***. Similar to capacity, the state agency must choose to implement EBT with the human and financial resources that it has.

- ***Technology.*** The state agency must choose an EBT technology that it has the capacity and resources to implement and operate.

Assessing these three issues will be critical in answering questions such as whether the state agency should choose an offline, smart card solution or an online mag-stripe solution. It will also drive the decision on whether the state will host its own system, contract out the hosting of the system, or host certain EBT functions while contracting out the rest.

Factors Driving Delaware WIC's decision

Four factors drive Delaware's approach to EBT. They are:

1. ***Size***. Delaware is a small state with a relatively small case volume that is trending downward. Because of its volume its NSA grant is relatively small. This limits how robust a solution it will be able to adopt.
2. ***Funding***. Any EBT solution must fit within the constraints of the state's NSA grant. This eliminates any potential solutions that would require funding beyond the limited amount it can reasonably expect over the next five years. Adopting a solution that would exceed what it can expect in NSA grants presents an unreasonable risk to the state.
3. ***Capacity***. Because of its limited funding Delaware lacks the organizational capacity to adopt EBT solutions that would require it to host the EBT system, in the way that other states, like Texas have.
4. ***Resources***. Delaware currently operates its WIC program food delivery process with five FTEs. Any EBT solution would have to be implemented and operated within this complement.

Assessing WIC Information System Capability

The Delaware Department of Health and Social Services is in the process of transferring the Maryland WOW system for the purpose of replacing its current, aging WIC MIS. This transfer is occurring while the state is evaluating the feasibility of WIC EBT once the WOW system is transferred.

To determine the suitability of this system for EBT, the state performed an analysis that occurred over 74 days, from November 18, 2010 through January 31, 2011. It encompassed the following tasks:

1. Review of existing technical documentation on the Maryland WOW system, including without limitation:
    a. Appendix G of the FReD, which offers a comparison of the Maryland WOW system to the FNS-mandated requirements for WIC EBT
    b. WIC EBT Readiness: WIC Information System (IS) Developing Functionality Needed to Support EBT, a publication of the Food and Nutrition Service
    c. The FNS-funded State of Delaware WIC Eligibility System Alternatives Analysis, dated October 5, 2008 and performed by Booz-Allen Hamilton

   d. The DHSS Delaware WIC on the Web (WOW) IAPD ARRA WIC Technology grant dated July 15, 2010
   e. The State of Maryland Consulting and Technical Services (CATS) Task Order Request for Proposals for WIC WOW System Support dated February 28, 2006
   f. Addendum #1 of the State of Maryland CATS Task Order Request for Proposals for WIC WOW System Support, dated August 31, 2010[3]
2. January 12, 2011 teleconference with representatives of the Maryland WIC Program and WOW system contractor Three Sigma Software, Inc.[4]
3. Webinar on the WOW system sponsored by Three Sigma Software, Inc., the Maryland WOW support contractor on January 25, 2011

Because the WOW system will be fully implemented by the time Delaware begins the development and implementation of EBT, the state has chosen to use WOW as the baseline for its feasibility study, rather than the old system which will be discontinued well prior to EBT activity.

Delaware WOW System

EBT Functional Requirements

The WIC system requirements for EBT are set forth at §3.4.2 of the FReD, as well as in the FNS guidance on EBT-readiness functionality.[5] They include:

1. Being able to establish an EBT account
2. Adding participants to an account
3. Issuing electronic benefits
4. Issuing an EBT card
5. Obtaining an account balance
6. Updating EBT account information
7. Removing participants from an account
8. Processing EBT changes (e.g. voids)
9. Processing changes to the EBT card

[3] Addendum #1 is an enhancement that calls for support of the transfer of the WOW system to Delaware.
[4] Participating in the call were Jacqueline Boras, Maryland WIC Director, Debbie Morgan, IT Unit manager, and TC Mullany and Courtney Panunzio of Three Sigma Software, Inc. Three Sigma is the support contractor for Maryland WOW, has been chosen as the Maryland support contractor for the system transfer to Delaware, and was also the support contractor for the transfer to Michigan. Therefore, they have worked on all three of the WOW-based systems.
[5] *WIC EBT Readiness: WIC Information System (IS) Developing Functionality Needed to Support EBT*. Publication of the Food and Nutrition Service. April 2006. http://bit.ly/hORJfq

In addition to these requirements, an EBT system must be able to exchange data with the MIS system. For example, the EBT system must have access to the UPC database maintained by the MIS system, since WIC food purchases are authorized by the EBT system based on a product's UPC or PLU code.

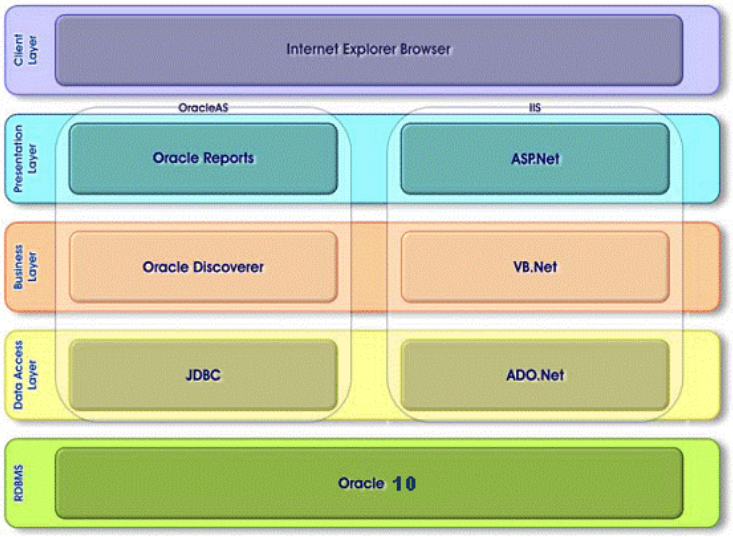
The WOW system when operating in Delaware could meet FNS' requirements, since Michigan's MI WIC system, a WOW transfer system, has been meeting these nine requirements statewide since 2009. Our analysis of the federal requirements, the system documentation, and several conferences with Maryland and the system contractor, Three Sigma, validate this conclusion.

WOW System Specifications

System Overview

WOW is a web-based system that meets all of the FNS FReD requirements. It was completed in 2005. It uses a centralized database and user interface developed in Microsoft Visual Basic.NET with an Oracle 10 database behind it, as shown in the following diagram:

Exhibit 4: WOW System Architecture



The Web-based front end lets authorized users access the system from any Internet-equipped computer. This expands the potential for extending service into sites that had once been unserviceable.

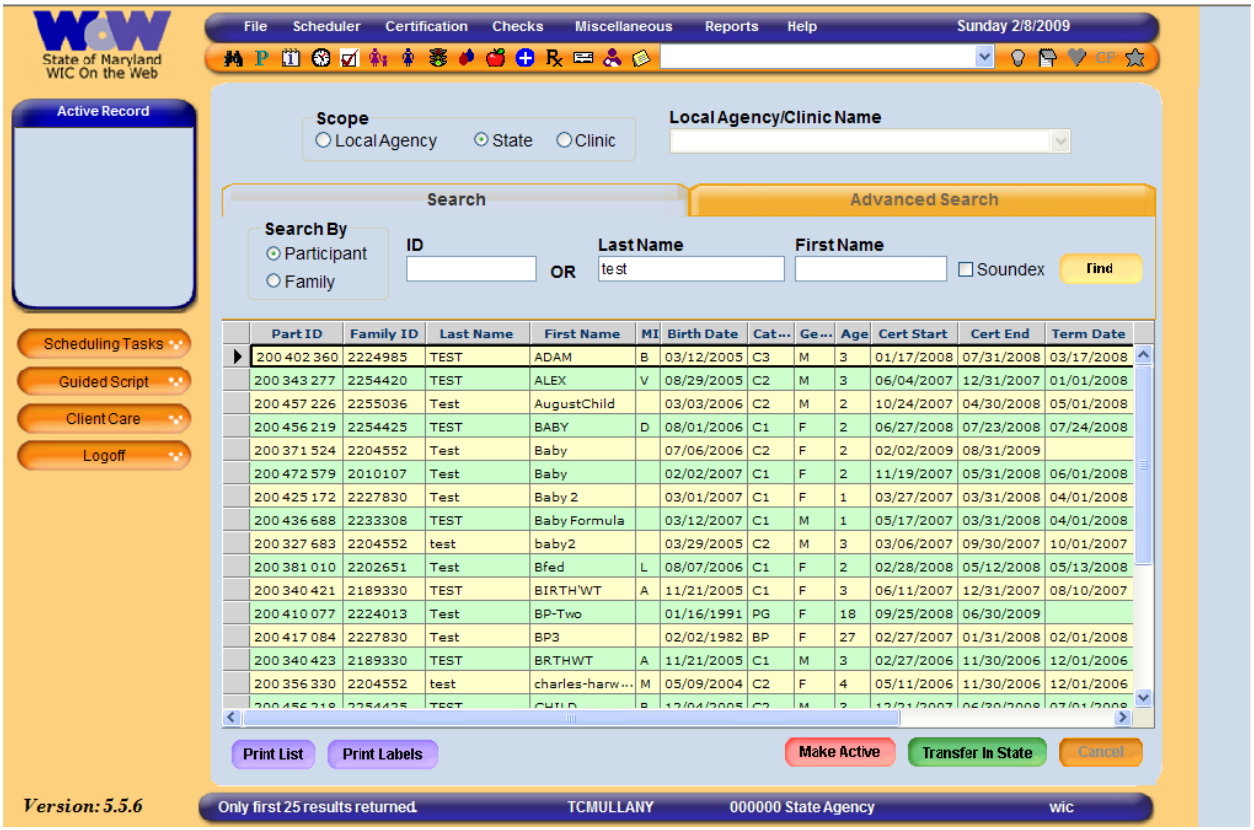
WOW consists of seven integrated modules that work with each other to perform the information management tasks required of the WIC program. These modules include, for example, clinic, vendor, finance and training functions.

WOW is based on a centralized database running on a Windows server. Four major system components access that database: the front-end, the back-end, the end-of-day process and external interfaces.

System Profile

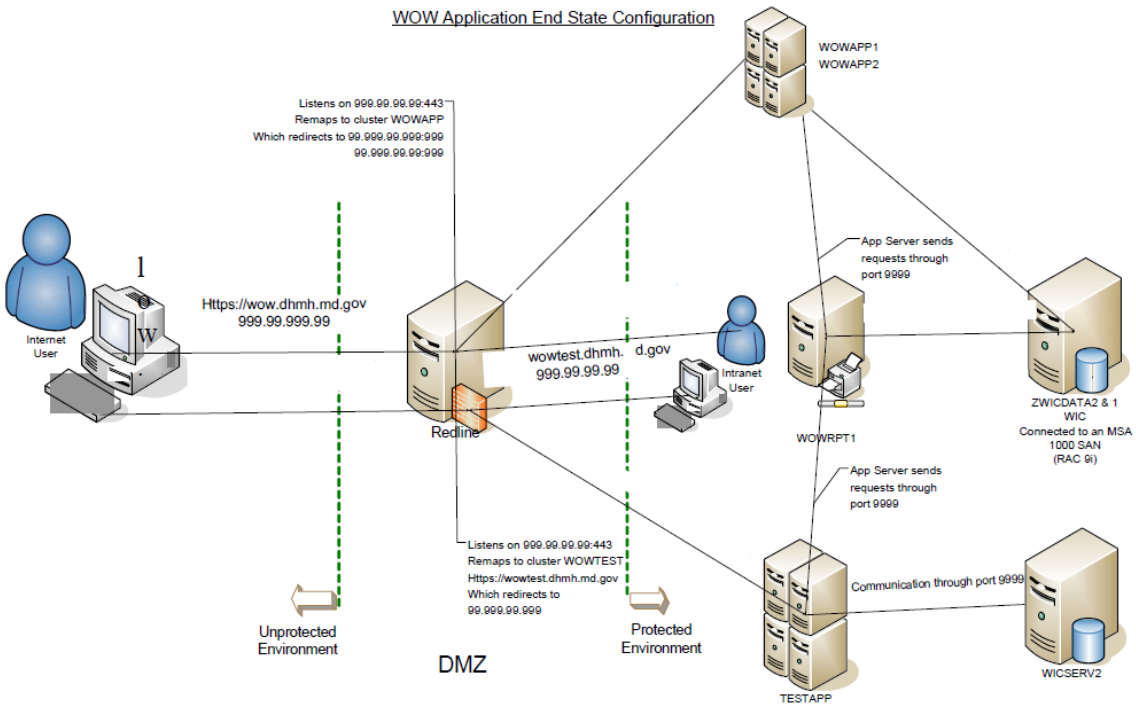
Following a review of the federal specifications we conducted a functional review of the Maryland WOW system, using the existing documentation, as well as the teleconference and webinar with Maryland WIC and Three Sigma. This review consisted of an overview and a more in-depth profile of the system.

Exhibit 5: Main Screen of the WOW System



The WOW network is comprised of three different sets of servers. Each server subsystem performs a different information management role within the overall system. This is illustrated in Exhibit 6.

Exhibit 6: WOW Communication from the User Point of View



The WOW system is a versatile, adaptable information system that has been transferred twice (Michigan and the Virgin Islands) prior to its transfer to Delaware. It is well supported and as a transfer system (Michigan) has performed well in EBT.

Analyzing the suitability of WOW for EBT

The final step of the evaluation process was an analysis of the Maryland WOW system with respect to whether it is suitable for supporting EBT for Delaware's WIC program. For this we relied mainly on our discussion with two state agencies (Michigan and Maryland) and Three Sigma.

The use of the WOW system to support EBT for Delaware presents an interesting situation. On one hand the WOW system was transferred to Michigan. Michigan, through its contracted processor, Affiliated Computer Services (ACS, a Xerox company), currently operates a statewide WIC EBT system that interfaces nicely with MIWIC.

On the other hand the Maryland system itself has never supported EBT benefits distribution, although the state plans to do so. The FNS FReD for WIC EBT systems states that the nine key functional requirements for a WIC EBT system are "future enhancements" to Maryland and Delaware WOW.

There does not appear to be any evidence that WOW could not support EBT and perform these functions. MI WIC is a WOW-derived system which performs EBT successfully. With some effort (see below) and testing WOW could do the same.

The MI WIC Michigan data system currently delivers its WIC benefits via EBT, and MI WIC is a transfer of the WOW system. The WOW system currently meets the FNS requirements for an EBT-ready data system. And the WOW system already contains EBT requirements like food category-subcategory and UPC table maintenance, as well as the screens and code that would be required for EBT.

Adapting WOW for EBT

There are three changes that would have to be made to the WOW data system to support EBT, according to TC Mullany the WOW project manager for system support company Three Sigma Software, Inc. First, the print routine would have to be adjusted so that benefits are posted to the family, rather than participant level. The second is to tie benefit redemptions to the UPC level. And the third is activation and use of the EBT screens.

We also note here that WOW is not currently compliant with the WIC EBT Universal Interface specification. However, the advantage that Maryland and Delaware would have in converting to EBT is that the system code required to interface EBT could be ported directly from the Michigan system. Mr. Mullany estimates that making WOW EBT-ready be a six-to-eight man-month effort.

By choosing to adopt the Maryland WOW system as its MIS, Delaware has mitigated much of the risk inherent in conversion from paper benefits to EBT. The data system has already been transferred twice (from Maryland to Michigan and the U.S. Virgin Islands), and the EBT module successfully operates in a high volume state like Michigan.

The only remaining MIS issue is telecommunications. However, Delaware's state telecommunications system is advanced and can expect to maintain a sub-second response time even with the addition of EBT-related traffic.[6]

The DE WOW data content will add less than 25% to MD WOW's ample capacity. MD WIC already possesses all infrastructure (lines, servers, SAN storage, etc.) necessary to adequately host DE WOW, according to the IAPD, and there is no indication that the additional EBT volume would degrade performance. In fact, the Maryland program officials indicated that they would not have assented to the transfer if there were evidence that such would be the case.

From a technical standpoint, the most substantial change in the conversion to EBT benefits redemption is the writing of data to an EBT card. This would require a development suite with an ActiveX interface. However, again, this has been done in Michigan with little risk.

[6] Deliverable 5, *WIC Clinic Infrastructure and Capability* Report.

The Michigan WIC EBT system uses an online EBT platform. ACS maintains authorization and benefits files, which are sent to ACS in real time when benefits are issued. Benefit redemption transactions are authorized on a real-time basis against the benefit file and then reconciled.

ACS then sends a redemption file (batch process) containing the previous day's redemptions to the MIS. In addition, real time redemptions by clients are available from the MIS via a web service to the EBT system.

In an offline platform, the benefits are written directly to the client's EBT card from the state benefit file. Delaware at this point has not made a decision on using an online or an offline platform. However, in terms of platform there appears little risk in favoring one over the other. In an online scenario the WOW system would interface with a web server; in an offline scenario it would interface with a desktop computer.

The primary impact of the online vs. offline decision is not to the WOW system. It is to the operations of the WIC clinics.

The clinical EBT functionality will be slightly different between the two platforms. This may affect how EBT is implemented in the clinics. In addition, should DHSS outsource the EBT program, the contractor would be responsible for training cardholders and vendors, and developing a methodology for dealing with issues as they arise.

Therefore, the use of a well-tested, well transferred system that currently is performing EBT operations in one state, the fact that the system meets FNS EBT requirements, and that EBT will have little technical impact on the system all speak to the potentially successful addition of EBT to the WOW system.

The preponderance of information indicates that the system could successfully support EBT, and there is little evidence to the contrary. Therefore we conclude that Delaware WOW, when implemented, could successfully support EBT benefit issuance and redemption.

Delaware WIC Business Capacity

Delaware currently serves some 23,000 WIC participants per month. The organizational and financial capacity, of both the Department and Program, are fully allocated and efficiently utilized. The Delaware WIC paper check-based food delivery system is highly efficient and has low ownership costs. Delaware's competitive bid system for contracted WIC food prices has increased this efficiency by lowering relative operating costs for food delivery.

Staffing

The efficiency of the Delaware WIC program's food delivery process is seen in its staffing, which amounts to 4.75 FTEs. The current food delivery staffing costs for WIC in Delaware are $286,788. While the WIC program is extremely efficient—managing delivery to over 23,000 participants each month with a staff of 4.75 FTEs, there is little organizational capacity for growth with the current staffing.

Organizational Impact of EBT

The organizational impact of EBT on the Delaware WIC program will depend on the technology approach the State selects. The program has no excess staff capacity to devote to EBT. That means that certain resources would have to be redirected from current paper processes to EBT. This could easily be done. For example, ordering and managing check stock for the state's eleven clinics is a task that goes away under EBT. Resources spent on this task might be redirected to a WIC EBT task such as managing the UPC database.

However, taking on additional responsibilities, such as those that might be required if the state were to host its own EBT system, does not appear possible under the State's current NSA grant. For example, the state's current food delivery labor costs could escalate to over $500,000 if the state were to outsource the EBT processing (offline) but attempt to perform certain other tasks in-house as some other states have done. [7]

If the state were to adopt an offline EBT system hosting all EBT functions itself, we project the annual staff cost would be $773,000.[8] This would not be possible under the state's NSA grant.

The hybrid or shared approaches have similar state staffing requirements. In the Kentucky online system, and in the planned Arkansas offline system, the WIC agency is generally responsible for the following three key functions:

1. Administering the benefit issuance process through the WIC data system
2. Providing user and retailer training
3. Operating the help desk and other customer services functions

The contractor is responsible for these three key functions:

1. Managing the EBT host processor
2. Providing some elements of retailer technical assistance
3. Settling retail accounts

[7] Delaware WIC EBT *Cost Affordability Study*, page 31.
[8] *Id*.

The hybrid model increases the staffing requirements for food delivery to the degree that the state must procure and maintain card inventories and maintain the APL/UPC database. Based on our conversations with Kentucky project staff we concluded that an additional Management Analyst III, at half-time, would be needed to oversee these EBT functions. Existing WIC Delaware staffing can be re-directed to meet the staffing requirements for the Retailer Management responsibilities.

We also determined that the need to establish and maintain a two-way interface between the WIC WOW system and the contractor benefits data base would exceed the current staffing. Therefore, we assumed the need to add a .25 FTE to the MIS category for both Alternatives 2, a hybrid online solution in which the SA provides some of the EBT services in-house, while contracting out others, and Alternative 3b, an offline solution in which the SA provides some of the EBT services in-house while contracting out the rest.[9]

We also assumed that Delaware would have to increase the financial services staff resource for Alternatives 2 and 3b to support a higher level of interface with a fiscal agent contractor in these alternatives.

To model the staffing requirements for Alternative 4, a state-hosted offline solution, we initially sought to compare Delaware to a similar state operating an offline system. However, finding a comparable State Agency program provided a challenge.

The sheer size of the Texas program eliminated its EBT solution from the comparison pool. Wyoming WIC participation is about one-half the size of Delaware's and New Mexico is nearly 3 times larger. But Wyoming's NSA budget per participant per month (PPPM) is $25.65. This is 20% larger than Delaware's, whose $20.55 PPPM rate is more in line with New Mexico's $19.54.

In the absence of a good match for comparison purposes, we did two things. First, we concluded that we could project a more reliable estimate by allocating re-directed existing resources in Delaware.

Second, we added staff in those functions reported in current projects to require additional effort. New Mexico and Wyoming report that the primary staffing impact of hosting offline EBT are most evident in the following four functions:

1. Responding to retailer needs related to APLs
2. Responding to participant needs related to presumed card failures and card loss
3. Size and complexity of data base administration (DBA) requirements
4. Managing the retailer claims and settlement process

[9] The four alternatives are identified and described in more detail below at Exhibit 20, *EBT Technology Options.*

With full re-direction of the existing staff the need remained to assume additional staff resources to support Alternative 4[10] in these four (4) functional areas.

Accordingly, we added one FTE Management Analyst III position to Food Delivery, and one FTE Vendor Field Rep to Retailer Management to manage and facilitate the approved foods and card management functions.

In response to the EBT Hosting, operations and DBA requirements, we projected an increase in Alternative 4 MIS and Technical staff resources by 2 FTE above the paper system.

Finally, to accommodate the complete settlement and payment function, we increased the Financial Services staffing for Alternative 4 by one FTE above the baseline paper system.

The net result is that, while Delaware operates at peak efficiency currently, any EBT alternative that requires an increase in capacity would be beyond the funding limitations of its current NSA grant.

Based on the Cost Affordability Study, which has been submitted as Deliverable 15, the alternative that would have the lowest cost of ownership[11] closest to the current paper-based system[12] would be the online outsourced solution with a total annual NSA cost-per-case-month of $5.27. This is slightly lower than the cost of the current voucher (check) system.

At the other end of the spectrum the offline, state-hosted model has a projected total annual NSA cost per case month of $8.02. These are documented in Deliverable 15, the Cost Affordability Study and in the Cost Affordability Study workbook, which was submitted with it.

Retail Community Issues Regarding EBT

In order to assess the current abilities of Delaware WIC vendors to handle EBT, the state evaluated the existing retail technology used by its vendors. The evaluation was conducted from October 21, 2010 through January 14, 2011. It consisted of three parts:

1. Assessing the baseline payments infrastructure and capability that currently exists within the 86 Delaware WIC vendors
2. Analyzing the current technology capabilities of this vendor community
3. Performing a gap analysis to determine any areas in which EBT technology may be lacking.

[10] An offline, state-hosted solution, similar to Texas.
[11] *Cost of ownership* is the cost of implementation plus five years of operation.
[12] The baseline paper system cost is $4.6 million.

The State evaluated current vendor technology in light of an overall objective of maximizing the number of WIC vendors that would be capable of integrating the WIC EBT eligibility and payment transactions into their electronic payment systems.

This goal of maximizing the number of integrated retailers and thus minimizing the number of WIC vendors running stand-alone WIC EBT terminals is a cost issue, and an important one. FNS and the state are obligated to allow every WIC vendor to continue participating in the WIC program following EBT conversion at no cost. This will require the state to fund the purchase of the terminals, cables and peripherals. However, it will also require the state to provide vendor customer support for the terminals as well as maintenance and repair.[13]

Current Retail Technical Capabilities

To assess the current state of retail technology among Delaware WIC vendors the state conducted an online population survey of those vendors. This was administered via email to eleven multi-unit companies who operate the bulk of the WIC vendor locations in Delaware. Some of these were national chain store companies, such as Wal-Mart and SUPERVALU (operating in the Mid-Atlantic States under the Acme brand). Others were regional chain store companies like ShopRite and Redner's Warehouse Market. Survey participation among the chain stores was 100 percent.

In addition the survey was administered in hard copy to 21 independent or owned-and-operated (O&O) stores in the program. The survey was given to these stores by the WIC vendor manager, and returned either by fax or by mail. Participation among independent and O&O stores was also 100 percent.

The survey revealed that chain stores had the expected level of IT infrastructure required to accept EBT payments. It also revealed that many of the companies had recently (in the last three years) completed a refresh of their front-end payment systems. Many of the retailers also participate in WIC EBT programs in other states, like Kentucky, Michigan, New Mexico or Texas, according to the survey results. This experience raises the EBT knowledge base of the WIC vendor community in Delaware and makes it more likely that these stores will integrate WIC EBT into their electronic payment systems if they have done so elsewhere.

The independent stores also showed a higher-than-expected level of technological sophistication. Nearly all of the stores are equipped with broadband, most use scanning technology and a significant number already accept electronic payments (credit, debit, and SNAP EBT). The biggest technology shortfall appears to be the lack of ability to integrate electronic payments into their cash register systems.

[13] Depending on which procurement option the state elects these products and services would be provided directly by the state or through a contractor. In the latter case they would be included in the contracted cost-per-case-month (CPCM).

However, the independents also exhibited a surprising degree of automation, according to the survey results.

The results of the survey were presented in two parts, chain stores and independents, following conclusion of the survey.

Vendor Surveys

The vendor survey consisted of 14 questions. These questions were divided into three areas: technology, processing capability and experience. The technology questions centered on the stores' current POS and ECR technology, as well as the age of the equipment being used.

The processing questions involved the capability of each store to integrate payments, as well as merchant acquiring issues, and use of third party processors.

The final questions involved whether the vendor-respondent (chain stores) was involved in EBT elsewhere in the country, and if yes, in which states.

The survey took approximately five minutes to complete.

The results of the survey for both the chain stores and the O&O vendors revealed a technology level that will help ease the transition from the current paper voucher system to EBT.

Multi-unit National Chains

Technology

All of the chain-store WIC vendors have broadband Internet access into all of their stores, and all capture UPC data at the point-of-sale via a scanning system. Nearly all of the stores use a variant of one of three ECR systems: Fujitsu-ICL, NCR or the ACE SurePOS system. Of the few that do not use those three systems most use one of three other commonly available systems.

Having a limited number of ECR applications to deal with potentially makes it easier to achieve a higher degree of WIC EBT integration if developers only have to develop an interface to a limited number of supermarket systems.

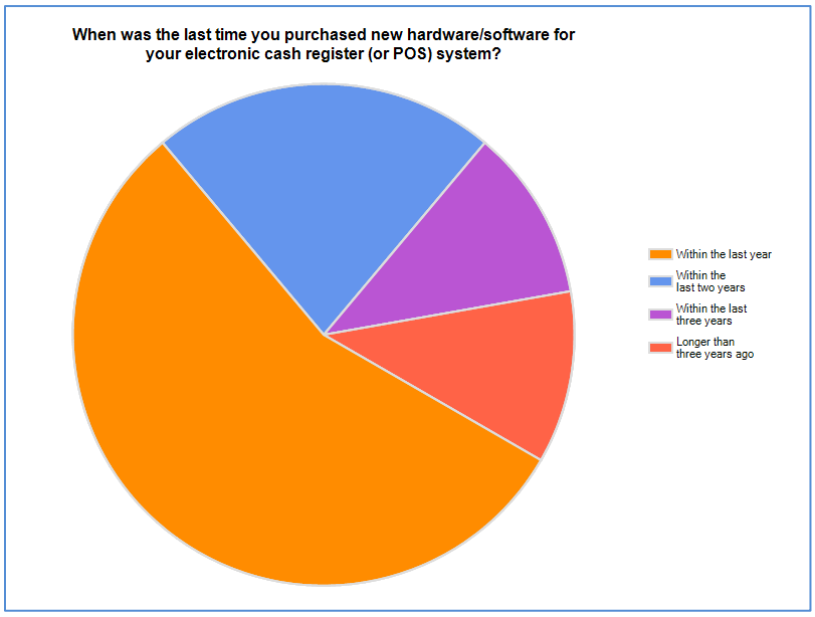
It is also important to note that the equipment that most of the WIC vendors operate is new, having been purchased within the last three years. In fact, 50 percent of respondents said they had refreshed their systems in the last year alone.

This makes it more likely that the vendor's equipment can handle integrating the WIC payment into its electronic payment system.

Processing

Nearly 80 percent of those stores surveyed process their electronic payments through a third party. And again, the market is tightly focused, with 80 percent of those processing their payments through First Data Corp. Having a limited number of processors who understand the WIC EBT payment issues is an advantage to the program.

Exhibit 7: Delaware WIC Vendor Technology Refreshes



WIC EBT Experience

Fifty-six percent of respondents said that their companies currently participate in WIC EBT programs in other states. While this experience was spread over most of the jurisdictions currently using EBT food delivery for WIC, the state cited most in the study was Texas.

Exhibit 8: Delaware WIC Vendors and Prior EBT Experience

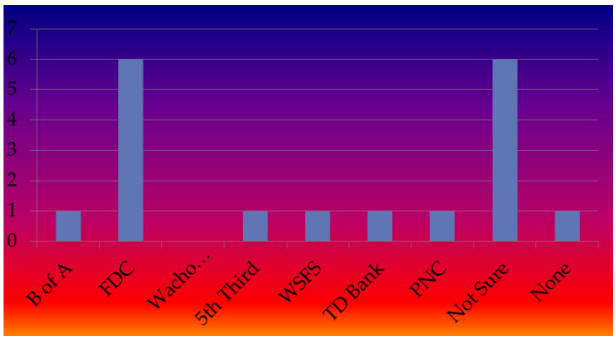
If your answer to the previous question was "Yes," please identify all of the other states in which you participate as a vendor in WIC EBT.

	Response Percent	Response Count
Michigan	20.0%	1
Kentucky	40.0%	2
Texas	80.0%	4
New Mexico	60.0%	3
Nevada	60.0%	3
Wyoming	60.0%	3
Cherokee Nation	20.0%	1
Intertribal Council of Nevada	0.0%	0
Vermont (CVV)	20.0%	1
Isleta Pueblo	20.0%	1
Chickasaw Nation	20.0%	1
	answered question	5
	skipped question	5

Independent O&O Stores

The survey administered to the independent store owners showed a high level of information technology in use. Nearly half of the independents surveyed integrate SNAP EBT[14] payments into their electronic payment system, rather than use a stand-alone state-sponsored terminal. This speaks to the likelihood that they would at least consider doing the same for WIC EBT.

Exhibit 9: Third Party Processors for O&O WIC Vendors



Similarly, there is a high percentage of independent retailers accepting various forms of electronic payments. As with the chain stores, the predominant processor of these payments is First Data Corp. as seen in Exhibit 11.

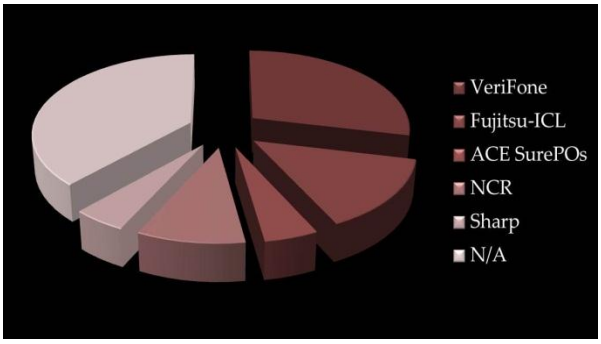
However, it is likely that vendors who rely on their banks (WSFS and TD Bank) probably process with First Data, which is a large merchant acquirer for financial institutions.

[14] In Delaware all WIC Vendors are USDA-certified SNAP retailers.

Technology Issues

In the area of ECR/POS systems, many of the independent vendors run some variant of three of the major commercially available systems: the ACE SurePOS, NCR or Fujitsu-ICL.

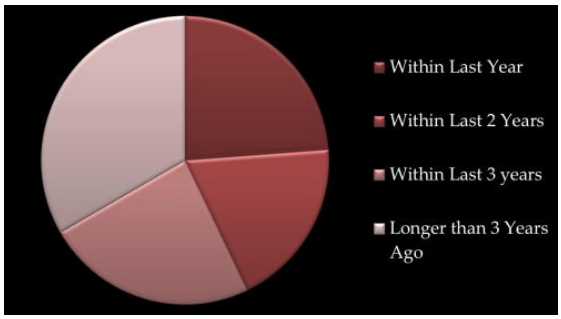
Exhibit 9: ECR/POS Manufacturers



One of the anomalies the survey revealed was the fact that the leading ECR system among the independent retailers surveyed was the VeriFone Ruby system. The Ruby system is an older system designed originally for convenience stores and "gas 'n' go" installations.

The Ruby system, while still supported, has been replaced by the VeriFone Topaz system, which is a more robust, multi-functional system. The presence of such equipment in a smaller store makes sense. However, it is unlikely that stores of this scale would ever be in a position to integrate WIC EBT. [15]

Exhibit 10: POS Refresh Statistics



The last important note on the survey of independent WIC vendors is that approximately two-thirds of respondents said that they have purchased new equipment within the last three years. In fact, a third of those having made such purchases did so over the last 12 months. This pattern is similar to that of the chain store WIC vendors.

New equipment means higher levels of security, faster processing and the capacity to handle more applications.

Independents make up less than 25% of the number of WIC vendors in the program. The proliferation of electronic payments, experience with SNAP EBT, and presence of POS equipment in these stores makes it likely that as a whole they would be receptive to integrating the WIC payment, provided it were financially feasible.

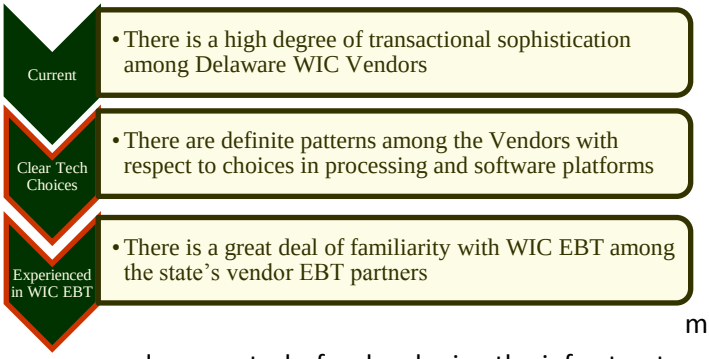
[15] We interviewed VeriFone representatives regarding this issue. The Ruby/Topaz platforms are no longer part of the company's strategic plan. They were not receptive to the idea of developing this platform for a low margin opportunity like WIC EBT.

Gaps

There are three assumptions we can make as a result of the WIC Vendor survey.

The first is that there is a relatively high degree of front end sophistication among Delaware WIC vendors. For the most part the multi-unit companies run industry-standard software. They also have relatively new front-end equipment. This equipment tends to have more features, better security and faster processors than the generation it replaces. This is important because it eliminates outdated equipment as a reason for retailers not to integrate the WIC EBT transaction into their electronic payment systems.

Exhibit 11: EBT Vendor Survey Results



In addition, the penetration of electronic payments, even among many of the independent operators, is relatively high. This is important for two reasons. First, it shows that these retailers understand the value of electronic payments. Second, it makes it more likely that many of the predecessor tasks for developing the infrastructure for electronic payments like WIC EBT are already done. If a WIC vendor has to factor in such expenses as new POS devices, new servers, cabling, back office infrastructure, etc. into the decision whether or not to integrate WIC EBT, they may be less likely to do so.

The second assumption is that the use of industry standard payment processing and software makes it more likely that developers and application service providers serving this market could achieve some efficiencies in developing POS integration software for WIC. This could reduce the overall cost of integration to the stores, and hopefully reduce the number of EBT-only terminals the state would have to sponsor.

Finally, the third assumption is that the relatively high degree of familiarity with electronic payments and EBT will work in WIC's favor. All Delaware WIC vendors are certified by FNS to accept SNAP EBT payments. More than half of the chain stores are already participating in EBT elsewhere in the country. And all of them, as well as many of the independents, accept other forms of electronic payments. All of these factors will work together to reduce the need to educate retailers on the advantages of WIC EBT and on the advantages of integrating the WIC EBT authorization and payment transactions into their own systems.

The state's goal should remain achieving the highest possible level of payment integration it can in order to keep the cost of WIC EBT affordable.

Equipping Retailers for EBT

Lane Inventory

There are currently 88 WIC vendor locations participating in the Delaware WIC program.

The following exhibit documents the lane inventory by participating vendor site.

Exhibit 12: WIC Vendor Lane Inventory

Vendor	Lanes
201 Concord Food Market	1
Acme Market 7806	10
Acme Market 7808	7
Acme Market 7817	10
Acme Market 7822	15
Acme Market 7826	10
Acme Market 7828	13
Acme Market 7836	6
Acme Market 7871	8
Acme Market 7872	9
Adams Great Value	10
Bill's Meat Market	1
Concord Deli	1
Dover AFB Commissary	10
Food Lion 488	8
Food Lion 585	9
Food Lion 875	9
Food Lion 879	8
Food Lion 960	6
Food Lion 1206	7
Food Lion 1294	6
Food Lion 1321	9
Food Lion 1369	7
Food Lion 1385	8
Food Lion 1419	8
Food Lion 1426	8
Food Lion 1458	7
Food Lion 1528	7
Food Lion 2123	7
Food Lion 2153	7
Food Lion 2160	6
Food Lion 2164	6
Food Lion 2182	8
Food Lion 2185	8
Food Lion 2521	8
Food Lion 2561	7
Food Lion 2565	9
Franklin Market	1
Fresh Pride 245	4
Gigante International Food Market	4
Gigante International Food Market	4
H & H Market	2
Johnny's Food Market	2
Kiba Mart	1
Latin Grocery	1
New Doris Market	1
Northeast Market	2
One Stop Market	1
Pathmark 540	18
Pathmark 586	7
Pathmark 589	14
Pathmark 590	17
Pathmark 593	19
Rash's Food Market	3
Redner's Warehouse Market	14
Rodriguez Food Market	1
Safeway 30	9
Safeway 31	12
Safeway 1763	16
Save-A-Lot Dover	4

Vendor	Lanes
Save-A-Lot Milford	4
Save-A-Lot Seaford	4
Save-A-Lot 239	5
Save-A-Lot 240	5
Save-A-Lot 270	5
Shoprite of Brandywine	21
Shoprite of Christina	24
Shoprite of Newark	22
Shoprite-First State Plaza	22
Super Fresh 561	6
Super Fresh 562	14
Super Fresh 584	12
Super Fresh 586	13
Super Fresh 588	8
Super Fresh 590	8
Super G 385	14

Vendor	Lanes
Super G 386	17
Super G 387	8
Super G 388	10
Super G 389	14
Super G 2351	8
Wal Mart Supercenter 1741	45
Wal Mart Supercenter 2460	40
Wal Mart Supercenter 2791	10
Wal Mart Supercenter 5039	34
Washington Deli	1
Woody's Market	1
Yafa Food Market	1
	817

Equipping Requirements

Consistent with past USDA practice,[16] DHSS will reimburse retailers for the purchase of ECR and payment terminal equipment compatible with EBT on the following basis in Exhibit 15.

Exhibit 13: Lane Equipping Reimbursement Schedule

ANNUAL WIC SALES	NUMBER OF LANES	MAXIMUM REIMBURSEMENT (includes 1 year maintenance)
$1 - 10,000	1	**$9200**
$10,001 - 22,000	2	**$14400**
$220001 - 33,000	3	**$19600**
$33,001+	**4**	**$25800**

[16] These numbers are provided for information purposes. Currently there is no USDA policy on reimbursement rates. Reimbursement rates are negotiated directly with retailers according to FNS. However, this exhibit is based on experience in previous states and provides a valid assumption for estimating implementation costs for Delaware.

Projected Integration Costs

Based on the WIC food sales of the stores listed in Exhibit 14 and the schedule in Exhibit 15 we estimated the federal reimbursements that would be required to assist vendors who wish to integrate the WIC EBT payment into their ECR/POS systems. That information is found in Exhibit 16.

Exhibit 14: Projected Integration Reimbursement Costs

Number of Stores	Number of Lanes to be Equipped	Maximum Reimbursement	Total Anticipated Costs
9	9	$9,200	**$82,800**
12	25	$14,400	**$172,800**
10	23	$19,600	**$196,000**
58	**225**	**$25,800**	**$1,496,400**

The total anticipated retailer reimbursement cost is estimated to be $1,948,000. However, at least 41 of the store outlets are owned and operated by major chains already operating EBT in other states and thus may require lower reimbursements.

Financial Settlement

DHSS has analyzed how the payment and settlement of WIC food sales might be affected by EBT. The goal of this analysis was to determine whether the change to EBT will adversely affect retailer payment or program cost.

In addition the state has studied the issue of whether it is more beneficial for vendor settlement to be completed by an EBT contractor or by DHSS, in conjunction with the state of Delaware's banking agent.

Current system

The State of Delaware currently settles WIC vendor payments using a combination of internal staff and a contracted banking institution. In the current paper-based payment environment the state of Delaware contracts with PNC Bank to provide a number of banking services for the state. Among these is standing as the fiscal agent for the WIC program. WIC food instruments (FIs) are cleared through the normal banking system back to PNC, which interfaces with Information Resources Management (IRM). PNC transmits a monthly FI Paid file to IRM, which in turn processes and produces the monthly data reports.

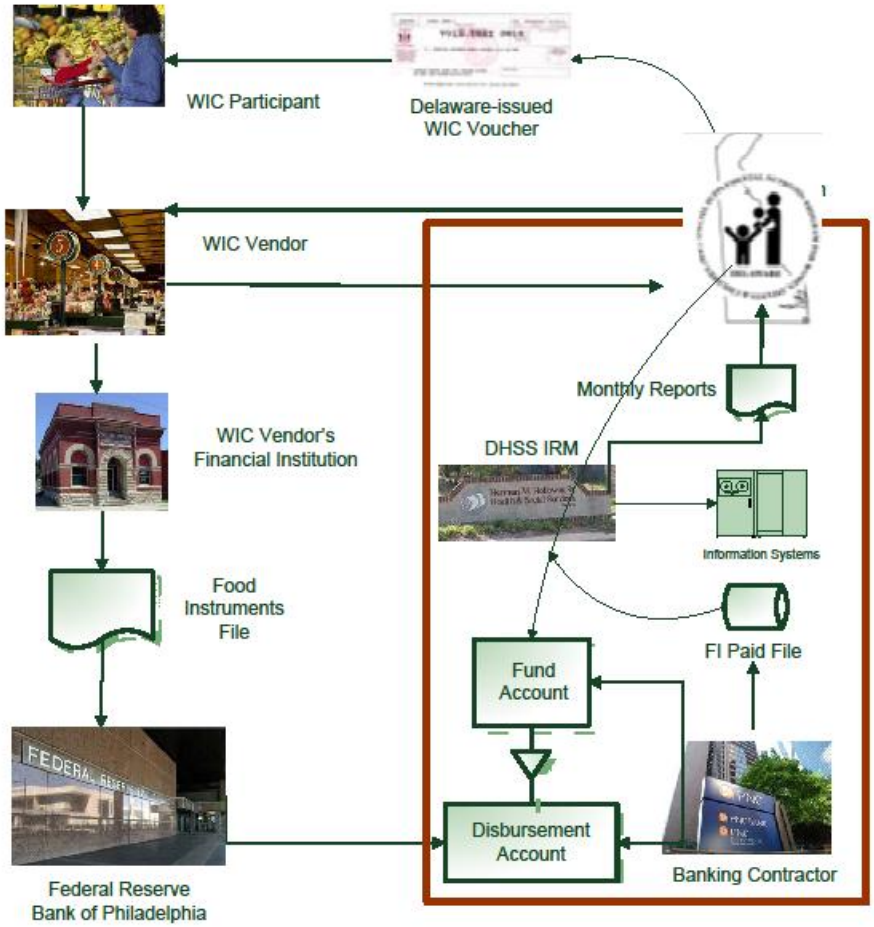
The parties involved in financial settlement of WIC FIs include the Delaware WIC program and IRM, the authorized WIC vendors, the vendors' retail financial institutions, the Federal Reserve Bank of Philadelphia, PNC, the state's banking contractor, and the vendor unit of the WIC program.

What makes the settlement piece of the Delaware WIC program unique is its Vendor Bid System.[17] Unlike other states, Delaware's Vendor Bid System does not allow for rejected items. Instead, in Delaware, if the shelf price for a WIC food item exceeds the price for which that vendor contracted to sell the item to WIC, the food instrument presented by the WIC shopper is deposited and honored, rather than rejected. However, when the FI is settled, an exception process identifies FIs with an overage. The vendor unit then has the task of recovering the overages from the vendor.

The following exhibit depicts how these parties interact to handle settlement from the point of voucher issuance to settlement, with the back end settlement piece framed.

[17] Deliverable 6: Vendor Bid Process Capabilities Report.

Exhibit 15: Financial Settlement in the Delaware WIC Program



PNC transfers funds on a daily basis from the fund account to the disbursement account to cover all FIs presented for payment that day.

The FIs are issued by WIC to program participants who use them at WIC-authorized food vendors. The FIs are processed through the banking system beginning at the vendors' retail banks. They are cleared through the banking system and presented to the state's banking contractor, PNC, for payment.

The Delaware WIC program maintains two accounts with PNC, the banking contractor. The first is a funding account, which is the account in which PNC holds the WIC funds. The second is the disbursement account, a zero-balance account from which vouchers are cleared and readied for payment.

The federal drawdown is based on the account balance in accordance with existing cash management policies. The draw process is initiated via the ASAP federal grant payment system. A cash receipt is processed through the state financial system in order to account for the cash inflow.

Proposed System under EBT

Services Provided in Current Settlement System

Under the current financial system used by Delaware WIC, the program is responsible for issuing FIs through the eleven clinics it operates to program participants. Program participants can use the FIs at any of the WIC authorized vendor locations throughout the state.

Currently, the WIC payment process consists of five services:

1. Paying WIC vendors for their sales of approved WIC food items
2. Controlling improper payments to vendors by electronically providing automated and visual edits of deposited FIs
3. Producing electronic records for WIC of all FIs processed
4. Providing an audit trail of payments from deposit through payment
5. Production of secure check stock to print FIs at the local clinics

As with other WIC check systems the vendors accept the FIs for payment and deposit them into their bank accounts at their retail banks. The checks are imaged (either at the retail bank level or at the Federal Reserve Bank through which the checks are cleared).

An electronic file of the food instruments is sent to the regional Federal Reserve Bank in Philadelphia where the FIs are cleared back to PNC Bank, the state's banking contractor. The account in which the funds for the purchase of WIC food are held is funded by Letter of Credit drawdowns and wire transfers to PNC.

FIs are cleared and settled by PNC. PNC originates a monthly "paid file" which is then sent to IRM. IRM processes the file and produces monthly financial reports. These include the program's monthly food expenditures, rebates, and vendor billing. The monthly reports and vendor billing are the tools used to recover the monthly overages from each vendor.

The Role of WIC in Financial Settlement

The actual settlement of vendor transactions is performed by the banking contractor PNC. PNC produces a file of paid financial instruments which it transmits to DHSS' IRM unit. IRM then processes the file monthly thru the WIC system and produces data back to the WIC program. The monthly data is used for federal reporting.

The role of the WIC program in settlement includes fiscal review of vouchers by the WIC vendor staff to recover overages from WIC Vendors. This process is described above. Since this recovery process must occur before the actual cost of food for a given month can be determined, this process can be considered part of payment and settlement.

Financial Impact of Settlement on Delaware WIC

The financial impact of settlement on the Delaware WIC program is negligible if you exclude the cost of recovering vendor overages. WIC FI settlement is one of several services that PNC provides in its role as a banking contractor to the state. WIC incurs no direct cost for this service. Instead, it is covered in the program's indirect rate along with other services that the program receives from the state.

However, as stated above the Delaware WIC Monthly Vendor Billing process consumes approximately 30 to 40 hours per month on the part of the WIC vendor unit. Therefore, if you consider the vendor bid system as the final step in settlement, the labor expended to recover the overages would be considered a direct cost to the WIC program.

Projected Settlement in an EBT Environment

We have examined Delaware's current settlement process for its paper food instruments, and we have looked at how settlement is provided through EBT contractors in several states. Based on this it is reasonable to conclude that neither state agency-initiated settlement, which is what occurs today, nor EBT contractor-initiated settlement, which might occur in an EBT scenario if Delaware chose to outsource this task, would materially affect the timing to WIC vendors. However, in an EBT environment accuracy would improve by the reduction of overpayments such as occur today.

The functionality of settlement would remain the same in an EBT environment. Vendors would be paid electronically for the sale of approved food items. Transactions would be recorded electronically. There would be an audit trail of transactions. An EBT contractor would be expected to pre-edit transactions prior to payment, eliminating the overpayments.

In addition the state's Vendor Bid System would remain in place under EBT.

What will definitely change is that the five services that make up the payment and settlement process would be reduced to three. When EBT is expanded statewide, WIC will cease to print FIs. Therefore, there will be no need to produce FI stock and print them in local clinics. Similarly, with no checks there will be no FI images produced.

However, the other three payment/settlement functions remain:

1. Paying WIC vendors for their sales of approved WIC food items
2. Controlling improper payments to vendors by electronically providing automated and visual edits of deposited FIs

3. Producing electronic records for WIC of all FIs processed

Continuing the Current Settlement Process

Arguing in favor of keeping settlement with the banking contractor and IRM is the fact that currently there is no direct cost to WIC for settlement services, since they are rolled up in the state's overall banking relationship with PNC and charged off to WIC as part of its indirect cost. There is already some direct cost to managing this function, and this could continue under an EBT system. In addition, WIC vendors are familiar with the system, receive timely payment, and work well with the vendor unit in adjudicating any payment issues that arise.

Finally, the system works well. There are no recorded defalcations, errors or omissions that have occurred under the current system.

Contracting the Financial Settlement Process

Arguing in favor of moving settlement to the EBT contractor if the state opts to use a contractor is the fact that contractors' systems are designed to include a settlement mode and changing from that norm might be more costly than having the contractor perform that task. Contracting out settlement would establish a pre-edit in the financial system to eliminate the pay-and-chase scenario that now occurs.

However, as with anything, there is inherent risk in changing an existing, functional work flow.

Given the stability and low cost of the current financial settlement mechanism, we recommend that DHSS keep the current system in place under EBT. If the Department determines to contract out its EBT services through a competitive bidding process we recommend making the settlement piece an optional service, and allowing bidders to price it accordingly and provide creative solutions for the pay-and-chase issue.

WIC Clinic Infrastructure

Delaware WIC currently operates 11 clinics throughout the state. These are located in the following communities:

Claymont	Milford
Dover	Newark
Frankford	Seaford
Georgetown	Smyrna
Middletown	Wilmington (2)

All WIC clinics are state-operated and co-located with other programs operated by the Division of Social Services. The Delaware program does not use temporary or itinerate clinic sites, nor does it contract out clinic responsibilities to third parties.

The assessment of the WIC clinic infrastructure included clinic visits, a survey of clinic supervisors and other WIC staff, and a review of documentation regarding the clinics' IT infrastructure. We evaluated workflows, including staff and client training, IT infrastructure, and the physical layout of the clinics.

The physical layout of the clinics is ergonomically sound. EBT would not require significant changes to how the major clinic functions—nutrition education, breastfeeding counseling, certification and benefit issuance—are delivered.

Our assessment determined that the clinic operations appear to have a number of characteristics—physical configuration, workflows, and telecommunications for example—that would be compatible with requirements for EBT, and that operations at this point do not appear to pose any significant challenges to transitioning food delivery to EBT.

The evaluation of the WIC Clinic Infrastructure took place from February 1, 2011 through February 18, 2011. Clinic visits were supplemented by a review of pertinent documents. These included:

1. The FNS-funded State of Delaware WIC Eligibility System Alternatives Analysis, dated October 5, 2008 and performed by Booz-Allen Hamilton
2. The DHSS Delaware WIC on the Web (WOW) IAPD ARRA WIC Technology grant dated July 15, 2010
3. The State of Maryland Consulting and Technical Services (CATS) Task Order Request for Proposals for WIC WOW System Support dated February 28, 2006
4. Addendum #1 of the State of Maryland CATS Task Order Request for Proposals for WIC WOW System Support, dated August 31, 2010

These documents were included in the assessment because they provide a high level description of the existing system functionality in the clinics.

Telecommunications

Ten of the eleven WIC clinics are equipped with a 10 Mbps TLS line. The exception is the clinic in Middletown which uses a digital subscriber line (DSL) for connectivity.

Each clinic has a LAN that uses switches. Workstations (PCs) connect to the network via 10/100 full duplex (FD) switches. Finally, each state service center is connected via a wide-area network (WAN).

The clinics feature telephone handsets, fax machines and outgoing telephone lines. Printers are used for producing the food instruments in each clinic.

Physical Plant

Each of the clinics differs in layout because of the space the clinic has to work with. However, the layout of every clinic provides space for its basic needs. These are:

1. Office space for nutritionists to provide nutrition counseling
2. Office space for SSTs
3. A breastfeeding room
4. Common area for work related activity such as photocopying, etc.
5. Administrative space for the supervisor
6. A reception desk
7. A waiting area for clients

Comparing the Current Clinic Infrastructure to EBT

The most substantial change in the migration from paper FIs to EBT will be replacing the check-printing operation with the card activation procedure. Many other workflow procedures will be a fairly clean substitution.

Exhibit 16 compares the current clinic work flows with how they might change after a transition to EBT.

Exhibit 16: Comparing Work Flows of the Current Voucher System with EBT

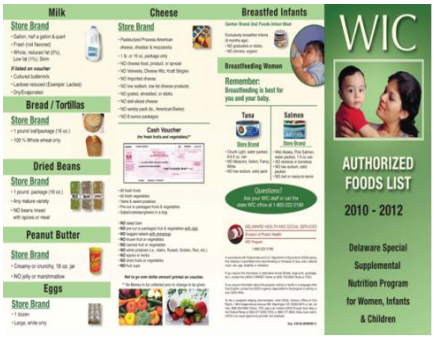
Process	Voucher System	EBT
Client training	Five minute process that takes place in the nutritionist's office. Support includes WIC ID folder and Authorized Foods brochure. The Milford clinic has the capacity to show training DVDs in the waiting room	Five minute process that takes place in the nutritionist's office. Supporting material can be the same; however, materials would have to be re-written to explain EBT processes. [18] Training DVD's could be shown in a waiting room
Nutrition education	Takes place in the nutritionist's office.	No change. Would take place in the nutritionists office
Breastfeeding counseling	Takes place in breastfeeding room	No change
Food instruments	Vouchers printed in clinic at either a central printer or in an	Vault EBT cards would have to be activated. Activation would take

[18] Production of state-approved training material is generally part of the contract with the EBT vendor

Process	Voucher System	EBT
	office. Check stock held in a secure, controlled environment	place at a workstation in an office. Vault cards would have to be controlled and secured.
Staff training	Three-day administrative training plus "hands on" training in the clinics	Training content would have to be changed to reflect EBT training and procedures. All else would stay the same

Training

Exhibit 17: Delaware WIC Authorized Foods Brochure



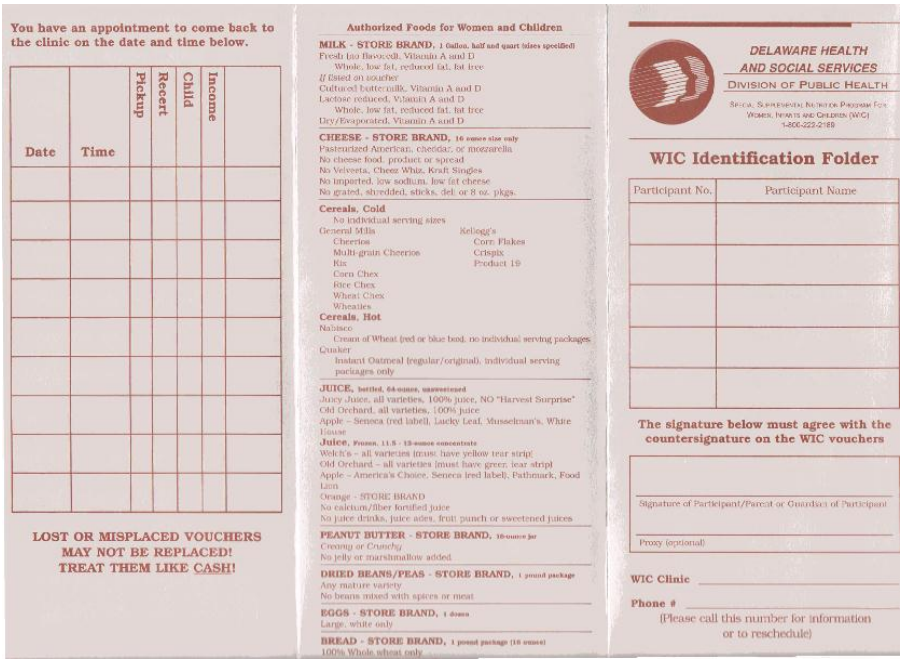
Training of the clients in the use of food vouchers generally takes about five minutes, according to the clinic supervisors. The clinics use two training aides. The first is a WIC identification folder (Exhibit 18) that new clients receive, complete with an authorized foods list. The second (Exhibit 17) is a four-color brochure that identifies the authorized food by brand and type (cereal, juice, milk, cheese and foods for infants, breastfed infants and breastfeeding women).

WIC clinic staff assist clients with problems, although most of these seem to involve infant formula (e.g. switching or returning formula). According to Ms. Briody of the Milford clinic the amount of time spent resolving voucher problems today is minimal.

The higher-volume Hudson clinic does spend "a significant portion of time" resolving client problems with WIC vouchers, according to Ms. Lea. This work is generally handled by the SSTs.

The clinic staff workload is focused on the clients. Any problems involving WIC vendors are referred to the vendor management unit in the administrative office in Dover.

Exhibit 18: Delaware WIC ID Folder



You have an appointment to come back to the clinic on the date and time below.

Date	Time	Pickup	Recert	Child	Income	

LOST OR MISPLACED VOUCHERS MAY NOT BE REPLACED! TREAT THEM LIKE CASH!

Authorized Foods for Women and Children

MILK - STORE BRAND, 1 Gallon, half and quart (sizes specified)
Fresh (no flavored), Vitamin A and D
Whole, low fat, reduced fat, fat free
If Listed on voucher
Cultured buttermilk, Vitamin A and D
Lactose reduced, Vitamin A and D
Whole, low fat, reduced fat, fat free
Dry/Evaporated, Vitamin A and D

CHEESE - STORE BRAND, 16 ounce size only
Pasteurized American, cheddar, or mozzarella
No cheese food, product or spread
No Velveeta, Cheez Whiz, Kraft Singles
No imported, low sodium, low fat cheese
No grated, shredded, sticks, deli or 8 oz. pkgs.

Cereals, Cold
No individual serving sizes
General Mills: Cheerios, Multi-grain Cheerios, Kix, Corn Chex, Rice Chex, Wheat Chex, Wheaties
Kellogg's: Corn Flakes, Crispix, Product 19
Cereals, Hot
Nabisco: Cream of Wheat (red or blue box), no individual serving packages
Quaker: Instant Oatmeal (regular/original), individual serving packages only

JUICE, bottled, 64-ounce, unsweetened
Juicy Juice, all varieties, 100% juice, NO "Harvest Surprise"
Old Orchard, all varieties, 100% juice
Apple – Seneca (red label), Lucky Leaf, Musselman's, White House
Juice, Frozen, 11.5 - 12-ounce concentrate
Welch's – all varieties (must have yellow tear strip)
Old Orchard – all varieties (must have green tear strip)
Apple – America's Choice, Seneca (red label), Pathmark, Food Lion
Orange – STORE BRAND
No calcium/fiber fortified juice
No juice drinks, juice ades, fruit punch or sweetened juices

PEANUT BUTTER - STORE BRAND, 18-ounce jar
Creamy or Crunchy
No jelly or marshmallow added

DRIED BEANS/PEAS - STORE BRAND, 1 pound package
Any mature variety
No beans mixed with spices or meat

EGGS - STORE BRAND, 1 dozen
Large, white only

BREAD - STORE BRAND, 1 pound package (16 ounce)
100% Whole wheat only

DELAWARE HEALTH AND SOCIAL SERVICES
DIVISION OF PUBLIC HEALTH
Special Supplemental Nutrition Program For Women, Infants and Children (WIC)
1-800-222-2189

WIC Identification Folder

Participant No.	Participant Name

The signature below must agree with the countersignature on the WIC vouchers

Signature of Participant/Parent or Guardian of Participant

Proxy (optional)

WIC Clinic _____

Phone # _____

(Please call this number for information or to reschedule)

The configuration of the clinics appears to be adequate for EBT. The clinics can accommodate EBT client and staff training just as they have with the voucher system. With the exception of software and some small devices for card activation, the current hardware configuration appears adequate.

We recommend that the state's implementation plan for the clinics include the following:

1. That it develop a site survey, approved by the project steering committee, to be used at all the clinics. This site survey should contain site drawings that document power sources, cabling telephones, work stations and access and egress. The survey will help to ensure that clinic implementation of EBT proceeds smoothly, and that cabling and equipment orders are properly sized.
2. That it conduct the surveys on-site at each of the eleven clinics in coordination with IRM technicians.
3. That the survey document any modifications that might be necessary on a clinic-by-clinic basis (e.g. additional cabling, ports, etc.).
4. That the final implementation plan contain a specific task, subtasks and checkpoints for surveying the clinic sites, as well as ordering, installing and testing clinic EBT equipment and configurations.
5. That the PSC reaches out on a scheduled basis to the clinics at least six months in advance of implementation to apprise them of the change and help them through the transition.

The most important infrastructure issue for the clinics is telecommunications. The State of Delaware operates a robust, high-speed network that should be adequate for transmitting EBT data.[19] These updates would be aggregated at the DE WOW server and sent to the contractor's EBT server, if the state agency ultimately decides to hire a third party. Therefore, most of the heavy traffic would be generated outside of the LAN, between the WIC MIS and the contractor's EBT host.

The clinic communication to the WIC MIS should be via the 10 Mbps TLS, which should be adequate to handle the incremental lift in network traffic generated by EBT. Given the relatively small caseloads of each clinic (in relationship to the speed and capacity of the network), and the fact that not all of the clients served daily are there to pick up food instruments, there appears to be nothing that would prevent a high-speed fiber network from handling the traffic.

Delaware's transition to EBT will benefit from a reliable, web-based MIS (Delaware WOW), a modern high-speed telecommunications infrastructure, and clinic workflow and space conducive to issuing and activating EBT cards and training clients in their use.

Considering the EBT Technology Alternatives

Currently USDA's Food and Nutrition Service (FNS) approves two technology alternatives for WIC EBT. The first is the use of a standard 30 mil plastic card with a ferrous stripe on the back that is machine-readable and can connect the card holder to an external database where the client's authorization and benefit data are held. This is referred to as an *online* card because data transfers and calculations take place during this online connection to an external database. At some point in the daily business cycle this data, held in an external host is settled, and reconciled via batch processes.

The second technology uses a similar card that has a small silicon chip milled into the surface of the card and covered with a foil overlay. This chip is capable of storing various amounts of information, measured in kilobytes. The chip's data is read by a point-of-sale (POS) terminal, and the authorization and benefit calculations are performed while the card is docked in the terminal. This is called an *offline,* or *smart card* because the data calculations take place at the point-of-sale, either in the terminal (sales data) or on the card (PIN validation).

As with online technology the EBT transactions that take place at a WIC vendor location are settled and reconciled at some point in the daily cycle through a batch process.

[19] If the state adopts an offline platform this traffic would largely consist of batch updates. In an online environment benefit issuance info would be transmitted to the MIS and subsequently EBT host in real time.

There has been a great deal of debate among WIC programs nationally and within the EBT and food retailing industries about the preferable technical solution for WIC EBT benefits delivery: the online system using magnetic-stripe or "ATM" cards, or the offline system using smart cards. Each of these technologies has been deployed for some time now in multiple states. Each has performed well where implemented. Both have their advantages and disadvantages.

Currently more than half the state agencies, territories and Independent Tribal Organizations are in some phase of planning, design, development, implementation or operation of WIC EBT—either online or offline.

A state's choice of WIC EBT card technology depends on a number of factors. These factors may be technical, financial, or in some cases, political.

A second issue that a state converting to EBT must wrestle with is how the EBT work will be performed. States have five general options[20]:

1. A state may elect to use an online platform provided by a third party, usually a payment processor or bank, which will perform the many EBT tasks on a turnkey basis for the state
2. A state could choose an online solution and perform some of the work itself, while contracting out the rest
3. A state may instead choose to use an offline platform and contract out the work
4. A state may instead choose to use an offline platform and perform some of the work itself, while contracting out the rest
5. A state may choose the offline platform and perform all of the work itself

Online vs. Offline

Although there are significant differences between the two approaches, both online and offline technology have proven capable of providing food delivery benefits in WIC. The following exhibit details some of the key differences between the two approaches.

[20] As stated previously, there are no current offline, contracted EBT solutions operating today and Delaware lacks the capacity to pioneer such a solution.

Exhibit 19: Online vs. Offline

Factor	Online	Offline
Availability (Of the system host)	The EBT host must be available for an EBT transaction to be processed.	The offline settlement server must process claims at some point in time. It does not have to be available to process claims in real time (i.e. as they come in) .
Benefit Issuance	Benefits are uploaded from the state to the EBT processing system.	The EBT cardholder must be physically present with the card in the clinic in order for benefits to be loaded to the card or modified
Card Costs	Cards are relatively inexpensive. Prices, depending on volume, are generally in the sub-dollar range, with $ .25 per card being a good estimate.	Card costs can surpass $4.00 per unit. This would be for a simple non-personalized (i.e. no name imprint) card issued over the counter at a clinic.
Card Security	The PIN is entered by the cardholder, encrypted and then validated at the host. Mag-striped card technology can be hacked. Data from the card, as well as the PIN, can be "skimmed" by criminals. However, given the relatively low value on WIC EBT cards benefit theft is relatively rare, unless the card was stolen by someone close to the cardholder or the cardholder gave her PIN to someone.	The PIN is encrypted and stored on the card. The cardholder enters the PIN on the PIN pad and it is validated on the card against the encrypted PIN.
Manual transactions	Manual transactions[21] are possible if retail equipment is non-functioning or the EBT host is unavailable.	Manual transactions are not available if the retailer equipment or the card is non-functional at that time.
Processing fees	The retailer may incur processing fees from a third party[22] if the store is not directly connected to	Since authorization and benefit transactions take place on the card itself, there are no

[21] FNS reports that manual vouchers are being phased out.
[22] Third party processors in the future may begin offering various data transport services on a "value added" basis.

Factor	Online	Offline
	the EBT host.	processing fees for these transactions. Scheduled batch uploads do not go through a third party processor.
Returns/refunds	Online systems can accommodate returns or refunds if the EBT host provides functionality to post an adjustment claim transaction record.	WIC vendors do not have write privileges to the card; therefore, these transactions are not possible.
Service outages	Network traffic, telecommunications and other factors can affect communications between the EBT terminals and the EBT processor. When this happens, service at the store level is not available.	If the host is unavailable transactions can occur because they are processed on the card itself, and then the aggregate file is uploaded to the host when available.
Split tenders[23]	If the state allows split tenders, the technology can accommodate it.	Split tenders are not currently possible with this technology but may be in the future
Stolen cards	If a card is lost or stolen, the card holder may receive a replacement without a waiting period. Cards can be picked up at a clinic or mailed	There is a 24-72 hour waiting period to receive a new card. Replacement cards cannot be issued until retailers settle their transactions. Replacement means the client must go to the clinic to receive the card and have benefits re-loaded to the new card. Although hotlists are downloaded to stores there is a lag period between when the card is reported stolen and the store system receives the hotlist.
Telecom	The system must provide for 24/7 connectivity between the EBT terminals and the EBT host, and between the EBT host and	Since transactions occur between the POS and the card, no connectivity with the EBT host is required. Connectivity is

[23] The use of two forms of payment on the same purchase transaction. The most obvious example is the use of a $50 gift card and $20 in cash to pay for a $70 order. In EBT it becomes an issue when benefits on a card do not cover the entire cost of a purchase.

Factor	Online	Offline
	the state MIS	required at the retailer level when uploading the store's card transactions for settlement.

There are other distinctions between the two technologies outside of the actual processing of data. For example, if a state has the resources within its NSA grant, hosting its own offline system can prove cost beneficial. Texas has successfully hosted and operated such a statewide system for the last five years. While the capital requirements to launch such a system are greater than those for an outsourced, online system, the recurring costs over the life of the system can be lower.

However, there is a cautionary note with offline technology. The chip within a smart card is similar to any computing device. As technology improves, the chip can obsolesce, like personal computers or cell phones. This generally occurs when manufacturers phase out the chip's operating system. If the card manufacturer no longer supports or manufactures chips containing the older operating system, a state agency could be forced to replace its entire inventory of cards.

The operating systems on these chips are often proprietary, limiting the state agency's options to the original supplier. Specifying multiple sources of cards in a procurement document does not really help if the chips can only be sourced to one manufacturer. That means that the state agency could be at the mercy of the chip manufacturer who could decide to replace the operating system at any time. This could put the state agency in the position of having to procure new cards with no leverage over pricing.[24]

Offline Implementations

Wyoming WIC implemented the original WIC EBT systems, which was and is an offline system. Wyoming continues to lead in their progress in integrating WIC MIS and EBT functionality. The New Mexico and Texas WIC Programs partnered in 2001 to develop an offline WIC EBT system. The initial solutions included a public domain, stand-beside platform for smaller grocers and a certified retailer-developed integrated POS solution in major chains. The New Mexico pilot began in 2003 in Truth or Consequences, Arrey and Hatch, NM, and later included WIC participants in Roswell, NM. The Texas pilot began in El Paso, Texas shortly after the initiation of the New Mexico WIC pilot.

Concurrent with these pilots, the states and USDA teamed with commercial ECR/POS development shops to offer "off-the-shelf" WIC EBT software that could be incorporated into the leading ECR systems used in those states. The states dubbed this approach the "commercial model" since the system hardware, software and operating systems are components of the ECR/POS platform owned and

[24] State agencies can mitigate this problem by determining beforehand whether the chip operating system is proprietary, or based on an open system like Java, and specifying an open system in their RFP.

maintained by the retailer. Statewide implementation was completed in New Mexico in 2007 and in Texas in 2008.

The Texas/New Mexico project was successful both as a WIC EBT deployment, but also as an enormously successful "proof of concept" of the commercial model. So successful that in 2008 the two state agencies were awarded the EBT Project of the Year designation by the Electronic Funds Transfer Association and its eGovernment Payments Council.

Online Implementations

The State of Washington and Michigan WIC launched online WIC EBT pilots in 2005. Washington WIC partnered with USDA to pilot the use of existing retailer equipment with a magnetic stripe card and online technology to deliver WIC benefits. This "proof-of-principle" pilot took place in 2005 and involved 300 families in the Tacoma area. The "demonstration in principle" was ended by December 2005 and was the first successful use of online technology for WIC EBT.

Michigan WIC, through consultation with the Michigan Grocers Association, also chose to adopt an online solution for WIC. JPMorgan was contracted under the same procurement as Michigan EBT SNAP and Cash Programs to develop and implement an online WIC solution. The state agency implemented a successful pilot in Jackson County in July 2005 with approximately 2600 families and 24 retail stores. As a result of an EBT Services re-procurement, ACS, Inc. became the prime contractor for both SNAP and WIC EBT. ACS has subsequently developed a WIC EBT solution that was implemented statewide in March 2009.

The states of Kentucky and Nevada, as well as the Chickasaw Nation tribal organization have also developed contractor hosted solutions work much the same as Michigan.

Relative Cost Affordability

DHSS analyzed these technology options, as well as three management options: contracting out the EBT system to a third party, hosting the EBT system within the state, and a "hybrid" approach where some EBT functions would be contracted out and some performed in-house. The management option is part of the technology consideration because how the project is managed may or may not be affordable, depending on the technology. The state agency prepared the cost analysis in accordance with FNS published guidance. We describe it in greater depth below.

This cost analysis confirmed that the Delaware WIC paper check-based food delivery system is highly efficient and has low ownership costs. It also concluded that there are three (3) potential EBT solutions that may be affordable, but all are likely to cost more than the paper system. One, an "online" system employing a magnetic stripe card and operated by a full-service contractor comes closest to cost

neutrality. This is only the case if the cost analysis applies an assumption that EBT services contractor pricing for Delaware will be similar to that obtained by other states with much larger WIC caseloads.

Factors to Evaluate

In evaluating its technology options, DHSS considered three factors. They were:

1. ***Affordability***. The state agency defined affordability as the ability to operate EBT within the confines of its NSA grant.
2. ***Capacity***. DHSS considered the organizational capacity of the WIC program to implement and operate each of the potential technology solutions.
3. ***Resources***. Knowing that the program's resources would not be increased, the state agency evaluated its technology options in light of its current resources.

Evaluating the EBT Alternatives

DHSS identified five potential EBT technology alternatives for consideration. They are described in the following table.

Exhibit 20: EBT Technology Options

SELECTED ALTERNATIVE	SUMMARY DESCRIPTION
Alternative 1: Online, Full Service Outsource	**Contractor provides a full range of EBT services in support of an online, magnetic card based solution including card acquisition/replacement, card and benefit issuance, staff training, client training materials, and user help desk. The contractor also provides merchant services and helps support, hardware acquisition and maintenance for WIC service and administrative sites, operates and maintains the EBT Host processor, and facilitates the retailer settlement and payment process. The state may provide staff training following an initial contractor train-the-trainer event.**
Alternative 2: Online Hybrid	**State and contractor share support of an online, magnetic card based solution. The State is responsible for card acquisition/replacement, card and benefit issuance hosted by the WIC data system, client and staff training, and user help desk. A contractor provides merchant services and helps support, hardware acquisition and maintenance for WIC service and administrative sites, operates and maintains the EBT Host processor, and facilitates the retailer settlement and payment process.**
Alternative 3a: Offline, Full Service Outsource	**Contractor provides a full range of EBT services in support of an offline, smart card based solution including card acquisition/replacement, card and benefit issuance, staff training, client training materials, and user help desk. The contractor also provides**

SELECTED ALTERNATIVE	SUMMARY DESCRIPTION
	merchant services and helps support, hardware acquisition and maintenance for WIC service and administrative sites, operates and maintains the EBT Host processor, and supports (*but does not facilitate*) the retailer settlement and payment process. The state may provide staff training following an initial contractor train-the-trainer event.
Alternative 3b: Offline, Hybrid	**State and contractor shared support of an offline, smart card based solution. The State is responsible for card acquisition/replacement, card and benefit issuance hosted by the WIC data system, client and staff training, and user help desk. A contractor provides merchant services and helps support, hardware acquisition and maintenance for WIC service and administrative sites, operates and maintains the EBT Host processor, and facilitates the retailer settlement and payment process.**
Alternative 4: Offline, In-house	**State is responsible for all EBT service functions in support of an offline, smart card based solution. State provides for card acquisition/replacement, card and benefit issuance, staff training, client training materials, and user help desk. The state also provides merchant services and helps support, hardware acquisition and maintenance for WIC service and administrative sites, operates and maintains the EBT Host processor, and facilitates the retailer settlement and payment process. The state serves as its own Prime Contractor for the solution through the procurement of cards, equipment and banking/ACH services.**

There are three (3) of these alternatives currently under contract in other WIC State agencies, as follows:

1a	**Full Service Contractor Online, Magnetic Stripe Card**	**Chickasaw Nation** **Inter-Tribal Council of Nevada** **Michigan** **Nevada** **Virginia (in development)** **West Virginia (in development)**
1b	Shared State-Contractor Online, Magnetic Stripe Card	**Kentucky**
2c	**Full In-House Offline, Smart Card**	**Cherokee Nation** **Isleta Pueblo** **New Mexico** **Texas** **Wyoming**

There are two other WIC EBT models originally considered by DHSS but dismissed. These are an online in-house solution and an offline outsourced solution. Neither of these two models has ever been successfully employed by a state agency. As a smaller agency Delaware lacks the capacity to be the first to attempt implementing an untried solution. There are reasons states have shied away from these two models. The online in-house model would demand the State acquire a level of banking and telecommunications expertise that is too tangential and not necessary to its core mission as a human services agency.

A completely outsourced offline model is less troubling, and there are companies willing to contract with a state agency for this purpose. However, these are largely small, undercapitalized companies. Placing WIC food delivery in their hands could present a risk to the agency's thousands of clients if these companies were to fail financially. This would not be prudent, since four other viable alternatives listed in Exhibit 20 exist.

However, the fact that DHSS chose not to evaluate these two options did not preclude them from considering "hybrid" solutions, both online and offline, where some elements of each were performed in house and others contracted. For these reasons DHSS determined not to proceed further with the online in-house and offline outsourced solutions, since it had four options to analyze that were more consistent with its mission and goal for EBT.

Cost Affordability Study

The FNS-mandated cost-affordability study, along with the cost-affordability workbook has been submitted as Deliverable 15. It is incorporated here by reference.

Recommended Technical Solution

There has been a great deal of debate among WIC programs nationally and within the EBT and food retailing industries about the preferable technical solution for WIC EBT benefits delivery: the online system using magnetic-stripe or "ATM" cards, or the offline system using smart cards. Each of these technologies has been deployed for some time now in multiple states. Each has performed well where implemented. Both have their advantages and disadvantages.

However, online vs. offline is not necessarily the biggest decision that a state like Delaware faces when converting to EBT. Delaware is a small state with a relatively low WIC caseload. And that caseload of

late has been trending downward. For Delaware the big challenges in migrating to EBT will more likely have to do with resources than with technical platform.

To ensure that WIC services are available where needed, Delaware operates a highly efficient program administration and food benefits system that is affordable within the limits of its WIC Food and NSA grants. Under any technical solution, we expect that EBT will cost more to operate than does the current paper-based delivery system. The State of Delaware, as is true nationwide, is in an austerity mode for the foreseeable future and would not readily approve proposals for additional WIC program or systems staffing unless there were no other alternatives (and only if federal resources were made available to pay for it). Thus while EBT "affordability" is an issue for all WIC programs, for Delaware it is the primary selection criteria.

In recommending a technical solution for Delaware we have focused on three areas:

1. What the state can reasonably afford to pay for EBT operations, and
2. The capacity of the state to manage EBT implementation and operation, and
3. What resources it has or would require to manage an EBT system

We quantified our analysis as much as possible. We have relied on the FNS-mandated cost affordability study completed previously, as well as a Quantitative Ranking Score, to help the state evaluate its key decision factors. In our analysis and recommendation we have relied on data supplied by the state agency, by other states and by third parties.

We evaluated five EBT technology alternatives. They are:

1. A turnkey online EBT system outsourced to a third party
2. An online system where the state supplies some of the EBT services
3. An offline system outsourced to a third party
4. An offline system where the state supplies some of the EBT services
5. An in-house (hosted) system where the state supplies all of the EBT services

Each of these solutions is technically feasible.

Our analysis concluded that hosting its own EBT system as envisioned in the fifth alternative would require more resources than the Delaware state agency currently has or could hope to have in the future. It also concluded that Delaware WIC's capacity was limited to such a degree that even taking on selected EBT tasks, such as envisioned in the 2nd and 3rd alternatives, would be difficult and not likely to be approved by the State.

The concept of an online system hosted by DHSS was not evaluated. The complexity of developing such a system and the resources to maintain and operate it would be beyond the capacity and resources of the state. We did evaluate the fourth alternative listed here: an offline system outsourced to a third party. We projected this to have a total annual NSA cost of $5.55 per case month. However, while there are companies selling these services, there are no actual installations of this model currently to prove its reliability. DHSS believes adopting such an untested solution would present an unnecessary risk to its clients. While the offline, outsourced model could well be a viable option for other larger, less risk averse states, it is not appropriate at this time for the State of Delaware.

Therefore, we determined that the turnkey online, outsourced system of Alternative 1 presents the best EBT choice for Delaware. It is the most affordable of the options, can be implemented and operated within the state's current grant resources, and would safely fall within the Agency's management capacity for both implementation and operations.

Methodology

To complete this analysis we relied on data supplied by the state agency, by other states, and by several vendors.

These data were used to populate the Cost Analysis previously submitted as Deliverable 15.

Based on the cost affordability study we identified four potential EBT alternatives. We then identified seven decision support factors which were critical in recommending an EBT solution. These "Program Impact Factors" were identified through a series of discussions with the state.

Each of the five alternatives was evaluated according to how it would affect each program impact factor. We then assigned a numeric score as each factor was applied to each alternative. This process is called a Quantitative Ranking Score. This process is explained in detail below.

The scores for all factors were added for each alternative. The highest score represented the best EBT alternative for the state agency, all factors considered.

Decision Factors: Weighing the Technical Options: Online vs. Offline/Hosted vs. Outsourced

There are two primary technology decisions facing Delaware. The first is whether to adopt online or offline technology. The second is whether to outsource the system, host the system in-house, or adopt a hybrid approach whereby most of the EBT services are outsourced but a number of them are performed in-house.

There are three factors which the state agency should consider when making these two decisions. They are the relative costs of the options available to the state, the resources the state agency will have available to it under EBT, and the impact the decision will have on the vendor community.

The relative costs of the available options for Delaware are presented in depth in Deliverable 15, Cost Analysis. This analysis concludes that none of the options presented will significantly reduce cost over the cost of the current paper-issuance system, but that an online hosted system can be marginally competitive with the cost of paper issuance.

In the area of resources, the state agency will remain constrained under EBT. Therefore, it is unrealistic to expect the state to opt for any alternative that would require resources beyond those currently dedicated to the paper issuance system.

The third factor is the WIC vendor community in Delaware. Delaware WIC has a uniquely close working relationship with its retailers by virtue of the state's Vendor Bid System. This system requires WIC's vendor management and its vendors to work together on pricing, contract performance and payment. The state agency's assessment of technology within the state vendor community (See Deliverable 6, Retail Capacity Evaluation) shows a degree of technological sophistication that would be an asset in the conversion to EBT. It shows a high degree of point-of-sale penetration and connectivity within the vendor community. Among those vendors who have experience in WIC EBT in other states, that experience is split between online and offline experience. We conclude that vendors could adapt to either solution, and that either technology is preferable to the existing paper system.

Procurement Issues

The Delaware Cost Analysis has shown that EBT options that require the state agency to host all or part of an EBT solution are the least cost-effective options. This is because of the state's low volume, small NSA grant and resource constraints.

Therefore, the more viable solutions are those that rely on outsourced solutions, either online or offline. Delaware WIC has three procurement strategies to evaluate for securing a WIC EBT system. These are described more fully in Deliverable 4. The three strategies are:

1. Execute the WIC option in the current SNAP EBT contract
2. Join a multi-state coalition in order to leverage a lower cost-per-case-month from a vendor
3. Conduct a procurement for a single-vendor to serve only the state of Delaware

In a Quantitative Ranking Score in Deliverable 4, the option that scored highest was executing the WIC option in the current SNAP contract. Part of this analysis was a treatment of the so-called "unitary" card, or single card, approach to SNAP and WIC. Under this scenario the current SNAP vendor, JPMorgan, would issue a single card that would serve WIC and SNAP households.

However, FNS recently produced guidance for states on this approach.[25] In this working paper, FNS identifies a number of problematic challenges to this EBT approach. The agency rightly points out the difficulties involved in reconciling demographic data, different certification technologies, and other operational issues.

In reality, a true unitary card is probably a more elegant solution than Delaware needs or has the capacity to fund. Whether the advantages of a single card are worth the effort of overcoming the considerable challenges to launching a system like this is also questionable.

However, Delaware WIC could still reap benefits like cost effectiveness, minimizing impact on the agency, program synergies, etc. by exercising WIC option in the SNAP contract. This could be accomplished along the lines of either the Michigan or Nevada/ITCN model, where separate cards are used.

This remains a valid option for the state.

Recommendation

In order to minimize subjectivity in recommending an EBT solution approach we have applied a four-step methodology termed a Quantitative Ranking Score (QRS) to the process of analyzing the state agency's technology options. The focus of the methodology is to analyze each option in light the impact that it would have on WIC food delivery in Delaware.

The QRS method identifies the four possible courses of action on the part of the agency (i.e. the EBT technology options) and then evaluates each one in terms the program impact factors, the seven decision support criteria identified as the most important factors in a successful conversion to EBT for Delaware.

The four alternatives are identified in Section 1 above. The seven program impact factors are:

1. Client impact
2. Cost allocation
3. Cost effectiveness
4. Local Agency impacts
5. Planning and implementation resources
6. Retailer impact
7. Risk Mitigation

The methodology for the QRS is as follows:

[25] *EBT "One Card" Technical and Programmatic Consideration*. USDA Food and Nutrition Service. May10, 2011

1. Each of the criteria is ranked, or weighted, from one to seven based on the relative importance the state assigns to it, compared to the other six criteria. A seven (risk mitigation) is the most important factor; one (cost allocation) the least important.

   Following are the points thus assigned to each Program Impact Factor:

   - Risk Mitigation (7)
   - Cost Effectiveness (6)
   - Planning and Implementation resources (5)
   - Client impact (4)
   - Local agency impact (3)
   - Retailer impact (2)
   - Cost allocation (1)

2. Each criterion is evaluated on a four-point "must" system: The option scoring the highest on a particular criterion must be awarded 4 points. The remaining three options can be awarded a number of points equal to or less than four in proportion to the other options.
3. Each option receives a score for each program impact factor that is the product of the impact factor's ranking times the number of points assigned to it for that option. For example, the Program Impact Factor "cost effectiveness" is the ranked as the second most important factor in the decision and carries six points on the QRS scale. Alternative 1, an online, outsourced solution is awarded 4 points for how it addresses this factor, since the cost analysis (Deliverable 15) concluded that it is the most cost effective approach for EBT in Delaware. Therefore, Cost Effectiveness in the online, outsourced alternative receives a weighted score of 24 points. Twenty-four is the product of the six weighting points of Cost Effectiveness times the 4 points that cost effectiveness received in an online, outsourced scenario.
4. The points for each of the seven Program Impact Factors are aggregated for each alternative. The alternative with the highest number of points is quantitatively the most logical EBT technology choice for Delaware.

This analysis is shown in the following table.

Exhibit 21: Quantitative Analysis of EBT Technology Alternatives

Program Impact Factors	Program Impact Factor Ranking	Alternative 1: Online Outsourced	Alternative 2: Online Hybrid	Alternative 3a: Offline Outsourced	Alternative 3b: Offline Hybrid	Alternative 4: Offline Hosted
Client impact	4	4	3	4	3	3
Cost allocation	1	3	4	4	4	4
Cost effectiveness	6	4	3	4	2	1
Local Agency Impacts	3	4	3	4	3	3
Planning and implementation resources	5	4	3	3	3	3
Retailer impact	2	4	4	4	4	4
Risk mitigation	7	4	3	2	2	1
Solution Score		**111**	**87**	**93**	**74**	**61**

The results of the alternatives analysis show that an online, outsourced solution provides the best EBT technical solution for the Delaware WIC program.

This is largely because of importance that three factors—affordability, capacity and resources (please see page 8)—play in the decision.

For example, as a small program the state agency is resource-constrained. The opportunity to manage a third party that would be responsible for all facets of the EBT system, rather than to host that system

with limited resources mitigates its risk of conversion to EBT. Therefore, it is responsible for 28 of 111 points in the evaluation of the online, outsourced option (7 X 4 = 28 points).

The attractiveness of Alternative 1, an online outsourced solution is that it is both cost effective and it presents the state with the best opportunity to mitigate the risk that is inherent in a technology conversion like this. While all three offline solutions are technically feasible, Delaware can afford Alternative 1, the online outsourced solution, and can manage it within its current capacity.

With respect to cost, as a smaller program it does not receive the same NSA grant as larger agencies. Therefore, cost is a central concern. The Cost Affordability model shows that Alternative 1 could provide the lowest cost operational cost.

Alternative 3a, while projected to be affordable, presents potentially significant risks to the state because it is an untested, untried model with few service organizations to choose from.

The state agency, because of its small staff, also has concerns regarding the planning and implementation resources that may be required to convert to EBT. Here again, a contracted turnkey solution provides the opportunity to outsource much of the planning, implementation and training to a third party.

The Cost Analysis also demonstrated that Alternative 3b, an offline hybrid solution, could also be cost-affordable—if current market pricing trends continue. However, Delaware is a small state and might not enjoy the volume-driven pricing that has been quoted to other state agencies. That unknown makes Alternative 1 a better choice for Delaware.

With respect to the impact to clients, local agencies and retailers, no one alternative scored significantly better than the others. The possible exception might be Alternative 1, which provides the best opportunity of minimizing the conversion strain on local clinics by outsourcing the planning, implementation and training requirements to a third party.

The evaluation of Alternative 1, compared to alternatives 2, 3a and 3b was largely a matter of capacity and affordability. With a small staff and small NSA grant, the state agency is not willing to take on the risk that even a hybrid approach would entail. Alternative 4, the offline, hosted solution, would require an additional 5 FTE. This would entail more cost, more resources and more risk than the state agency was willing to accept.

Recommended Plan of Action

Clearly the driving forces for Delaware WIC are capacity, affordability and resources. For this reason we recommend that the state agency pursue an online, outsourced solution. This recommendation is validated by the Cost Affordability Analysis and the QRS analysis of EBT Program Impact Factors shown above.

Technical Approach

With that in mind we recommend the following three-step course of action:

1. Delaware WIC should begin discussions with the state's SNAP program and its vendor (JPMorgan Electronic Financial Services) regarding the WIC option in the state's current SNAP contract. This is the course of action that best fits the state's requirements and its current limitations, including staffing and other resources and limited funding. This should be done as quickly as possible to determine the viability of this option prior to submitting an IAPD.

   The WIC pricing included in the SNAP contract would be affordable under current circumstances. However, the state agency should negotiate with the vendor to take advantage of the market trend pricing seen elsewhere (West Virginia and Virginia) in the Middle Atlantic region.

   We do not recommend the unitary, or single-card (SNAP and WIC) solution. We would anticipate that the vendor would issue separate cards for the WIC program, similar to what it does in Nevada and what ACS does in Michigan. This approach would avoid the unitary-card challenges, simplify the implementation process and help contain costs.

2. In the event that the state agency and the vendor cannot come to agreement on pricing and terms and conditions, the state should conduct an open procurement for an online, turnkey system operated by a third party vendor. Given Delaware's smaller client population, there is no evidence that it would necessarily enjoy the pricing proposed by vendors for West Virginia and Virginia. However, it is logical to assume that it would receive pricing that is below the benchmark set in the JPMorgan SNAP contract. How much lower would remain to be seen.
3. In the unlikely event that Delaware could not receive favorable pricing through an open procurement, then and only then should it look at a "hybrid" approach, whereby it would undertake certain EBT responsibilities and outsource others to one or more contractors. This would most likely be a hybrid offline solution. However, these solutions, and the vendors supplying key services such as processing and settlement, have yet to be tested in a market environment but may be less expensive than a

complete in-house solution. Adopting this approach would involve some risk beyond that which the state is willing to accept.

Under no condition could we recommend an offline solution that would require this state to take on all of the operational responsibility of a WIC EBT system. Doing so would not be cost-justified, would require capacity beyond what it currently has, and would require a significant increase in human resources.

Pilot Sites

Delaware WIC is proposing a pilot that would consist of two sites: the Hudson State Service Center in Newark and the Milford State Service Center in in Milford.

Rationale

. The Milford clinic currently serves 1,325 clients each month. Hudson, the larger of the two, services 6,185 on a monthly basis. The pilot caseload would be approximately 30 percent of the overall client population. This would provide more than an adequate sampling to test issues like clinic flow, equipment needs and client satisfaction in preparation for a statewide expansion.

Hudson is located in the northern part of the state and Milford in the southern part. This choice is consistent with Delaware WIC's usual method of performing clinic tests or studies in both parts of the state. The Hudson and Milford service centers were profiled in Deliverable 5, WIC Clinic Infrastructure Analysis. The program generally uses these two clinics in its studies and tests because of geography and caseload.

The geographic locations of the chosen pilot sites are ideal, as the sites provide a cross section of the WIC client population in Delaware: urban, suburban and rural. The environment is somewhat controlled which makes it conducive to containing the majority of participants in one location and minimizing transfers in and out of the clinic. These will reduce the likelihood of participants attempting to use their EBT cards in non-EBT stores.

Participating WIC Vendors

There is also adequate variety (chain stores and independents) of retailers for a pilot test. This will provide participants shopping choices during pilot since they will not be able to use benefits in non-EBT stores. These locations also provide dual starting point—north and south—for the eventual statewide system rollout.

The following table lists the Delaware WIC vendors in close proximity to each WIC clinic in the proposed pilot.

Exhibit 22: WIC Vendors in the Proposed Pilot Region

WIC Vendor Coverage in Proposed EBT Pilot Regions			
WIC Retail Vendors that are in close proximity to the Hudson State Service Center		WIC Retail Vendors that are in close proximity to the Milford State Service Center	
Name	**Address**	**Name**	**Address**
Acme Market 7806	100 Suburban Dr, Newark, DE 19711	**Food Lion 1294**	951 N. Dupont Hwy, Milford, DE 19963
Acme Market 7817	146 Fox Hunt Dr, Bear, DE 19701	**Gigante International Food Market**	209 B N.E. Front St, Milford, DE 19963
Acme Market 7826	4720 Limestone Rd, Wilmington, DE 19808	**Save-A-Lot Milford**	696 N. Dupont Hwy, Milford, DE 19963
Acme Market 7828	128 Lantana Dr, Hockessin, DE 19707	**Wal-Mart Supercenter 1741**	939 N. Dupont Hwy, Milford, DE 19963
Acme Market 7871	1 University Plaza, Newark, DE 19702		
Food Lion 2153	1200 Beaver Brook Plaza, New Castle, DE 19720		
Food Lion 2160	1607 Pulaski Highway, Bear, DE 19701		
Gigante Intenational Food Market	3421 Kirkwood Hwy, Wilmington, DE 19808		
Pathmark 586	4365 Kirkwood Hwy, Wilmington, DE 19808		
Pathmark 590	100 College Square, Newark, DE 19713		
Pathmark 593	148 Sunset Blvd, New Castle, DE 19720		
Safeway 30	2400 Peoples Plaza, Newark, DE 19702		
Shoprite of Newark	19 Chestnut Hill Plaza, Newark, DE 19713		
Shoprite-First State Plaza	1600 W. Newport Pike, Wilmington, DE 19804		
Super Fresh 586	2044 New Castle, DE 19720		
Super Fresh 588	401 New London Rd, Newark, DE 19711		
Super G 385	300 Eden Square, Bear, DE 19701		

2-5 Year Plan and Schedule

The 2-5 year Delaware WIC EBT plan consists of preparatory work that includes the hiring of contractors, if that is indeed the path the state follows, and project initiation. This is followed by six sequential phases covering design, development, implementation and operation. The last phase, at the end of the five years is a transition phase that allows the state time to play for its second iteration of EBT—whether that would be a continuation of the first or a transition to a different model or contractor. Although the phases are sequential there is some overlap between them.

Project initiation

Project initiation will begin following the award of an implementation grant to Delaware. It will include the process to hire contractors followed by project kick off meetings and defining the work

The following exhibit provides a high-level look at the tasks required for to launch the project.

Exhibit 23: Project Launch Tasks

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	1	Delaware Proposed WIC EBT Implementation Project Management Plan	1688 days	Wed 10/31/12	Fri 4/19/19		
2	1.1	IMPLEMENTATION GRANT AWARD	60 days	Wed 10/31/12	Tue 1/22/13		
3	**1.2**	**CONTRACTOR PROCUREMENT IF NECESSARY**	**223 days**	**Wed 1/23/13**	**Fri 11/29/13**		
4	**1.2.1**	**Procurement of Quality Assurance Contractor**	**137 days**	**Wed 1/23/13**	**Thu 8/1/13**		
15	**1.2.2**	**Procurement of Implementation Contractor**	**137 days**	**Thu 5/23/13**	**Fri 11/29/13**		
26	1.3	PROJECT INITIATION	546 days	Mon 12/2/13	Mon 1/4/16		
27	1.3.1	Meet Contractor Team	2 days	Mon 12/2/13	Tue 12/3/13		
30	1.3.2	Kick off Meeting	1 day	Wed 12/4/13	Wed 12/4/13		
35	1.3.3	Provide Updated Project Work Plan	25 days	Thu 12/5/13	Wed 1/8/14		
40	**1.3.4**	**Weekly Status Calls**	**271 days**	**Thu 12/5/13**	**Thu 12/18/14**		
96	**1.3.5**	**Monthly Written Status Reports**	**239 days**	**Wed 2/4/15**	**Mon 1/4/16**		

Launching WIC EBT in Delaware will begin with the award of an implementation grant from FNS. This will follow approval of the state's IAPD for EBT. Given the complexity of the task, we recommend that a portion of the grant be used to retain the services of a Quality Assurance (QA) contractor. The contractor will provide independent verification that all design, development and implementation (DDI) tasks have been accomplished correctly and according to plan. There are a number of organizations that provide this service. They are all experienced in the nuances of EBT technology and project management. When the contractor is engaged, a series of weekly status calls and monthly written status reports will begin.

Project initiation will begin with a kick-off meeting and development of a final, baseline project management plan.

Phase I –Design

The design phase will consist of a series of joint application design sessions (JADS) to define the interface requirements for EBT. It will also include a great deal of the planning for tasks such as transitioning vendors to EBT, and development of necessary system manual. This will also be the time when vendor outreach begins and training materials begin to be produced. This is shown in the following exhibit.

Exhibit 24: Phase I - Design

ID	WBS	Task Name	Duration	Start	Finish
109	1.4	PHASE I-DESIGN	130.75 days	Wed 12/4/13	Wed 6/4/14
110	1.4.1	Define Connectivity and Conversion from Paper Issues	27.55 days	Thu 12/5/13	Mon 1/13/14
117	1.4.2	Follow Up Requirements Meeting	2 days	Thu 12/26/13	Mon 12/30/13
120	1.4.3	Define Conversion Requirements	11 days	Thu 1/9/14	Thu 1/23/14
123	1.4.4	WIC Vendor Outreach	32 days	Thu 1/9/14	Fri 2/21/14
124	1.4.4.1	Delaware WIC Vendor Meeting	16 days	Thu 1/9/14	Thu 1/30/14
125	1.4.4.1.1	Retailer Presentation	16 days	Thu 1/9/14	Thu 1/30/14
128	1.4.4.2	Schedule Meeting with Delaware Grocers and Retail Merchants Association	1 day	Fri 1/31/14	Fri 1/31/14
129	1.4.4.3	Conduct Meeting with Grocers Association	5 days	Mon 2/17/14	Fri 2/21/14
130	1.4.5	Retailer Transition Plan	19 days	Thu 1/9/14	Tue 2/4/14
135	1.4.6	Document Deliverables	67.45 days	Mon 12/30/13	Wed 4/2/14
164	1.4.7	Manuals	130.75 days	Wed 12/4/13	Wed 6/4/14
165	1.4.7.1	Operations Manual	10 days	Thu 1/9/14	Wed 1/22/14
169	1.4.7.2	Reports Manual	11 days	Thu 1/9/14	Thu 1/23/14
173	1.4.7.3	Settlement Manual	11 days	Fri 1/24/14	Fri 2/7/14
177	1.4.7.4	Admin Terminal Manual	11 days	Fri 1/24/14	Fri 2/7/14
181	1.4.7.5	Update Manuals as Required	57 days	Mon 2/10/14	Tue 4/29/14
182	1.4.7.6	System Security Plan	16 days	Thu 1/9/14	Thu 1/30/14
186	1.4.7.7	System Test Plan	9 days	Fri 1/24/14	Wed 2/5/14
190	1.4.7.8	Lifecyle Test Plan	20 days	Wed 12/4/13	Wed 1/1/14
194	1.4.7.9	Training Plan	17 days	Wed 12/4/13	Fri 12/27/13
200	1.4.7.10	Produce Training Materials	129.75 days	Thu 12/5/13	Wed 6/4/14
201	1.2.4.1.1.1.1	Client Training Materials (Eng)	35 days	Thu 1/9/14	Wed 2/26/14
207	1.2.4.1.1.1.2	Creative Layouts for Client Training Material	25 days	Mon 2/24/14	Fri 3/28/14
213	1.2.4.1.1.1.3	Contractor Produces and Distributes Initial Quantity	26 days	Mon 3/31/14	Mon 5/5/14
214	1.2.4.1.1.2	Client Training Materials (Sp)	70 days	Thu 2/27/14	Wed 6/4/14
229	1.2.4.1.2	Staff Training Materials	66 days	Thu 12/5/13	Fri 3/7/14
247	1.4.7.11	Delaware Card Design and Replacement Issuance	41 days	Thu 12/5/13	Thu 1/30/14

Phase II – Development

Near the completion of the initial documentation and planning, system development will begin. This will include such tasks as testing the EBT software running on the state's administrative terminals, loading and testing POS devices, and establishing communications for batch transmissions. Testing will also

include the card system and the transition of former paper processes to EBT. This will culminate with ARU development and testing and, finally, the functional requirements test.

Exhibit 25: Phase II - Development

ID	WBS	Task Name	Duration	Start	Finish
257	1.5	PHASE II- DEVELOPMENT/PREPARATION	134.55 days	Wed 12/4/13	Tue 6/10/14
258	1.5.1	POS	13 days	Tue 4/15/14	Thu 5/1/14
263	1.5.2	Develop Retailer Manual	65 days	Wed 2/5/14	Tue 5/6/14
277	1.5.3	Connectivity	106 days	Mon 1/13/14	Tue 6/10/14
278	1.5.3.1	State Host to EBT Host	28 days	Mon 1/13/14	Thu 2/20/14
284	1.5.3.2	Batch Transmission-Communication Software	32 days	Mon 1/13/14	Wed 2/26/14
291	1.5.3.3	Administrative Terminals	6 days	Thu 2/13/14	Fri 2/21/14
294	1.5.3.4	Establish User IDs	77 days	Fri 2/21/14	Tue 6/10/14
295	1.5.3.4.1	User Test ID's	24 days	Fri 2/21/14	Thu 3/27/14
302	1.5.3.4.2	User Production ID's	53 days	Thu 3/27/14	Tue 6/10/14
311	1.5.4	Host Environment	70 days	Fri 2/21/14	Fri 5/30/14
312	1.5.4.1	Establish Test Region	70 days	Fri 2/21/14	Fri 5/30/14
329	1.5.4.2	Establish Production Region	17 days	Fri 2/21/14	Tue 3/18/14
353	1.5.5	Operations Support	111 days	Wed 12/4/13	Wed 5/7/14
375	*1.6*	*Development-Preparation Completed*	*0 days*	*Mon 2/10/14*	*Mon 2/10/14*

Phase III – Development/Testing

Phase III will continue with system tests, including the final Users Acceptance Test. Following the UAT the state will issue final updates to its Detail Design Document.

Exhibit 26: Phase III - Development Testing

ID	WBS	Task Name	Duration	Start	Finish
376	1.7	PHASE III-DEVELOPMENT/TESTING	94 days	Tue 2/11/14	Fri 6/20/14
377	1.7.1	Testing	78 days	Tue 2/11/14	Thu 5/29/14
378	1.7.1.1	Modular Testing	10 days	Tue 2/11/14	Mon 2/24/14
381	1.7.1.2	Card Conversion	34 days	Tue 2/25/14	Fri 4/11/14
390	1.7.1.3	Functional Demo	19 days	Fri 3/28/14	Wed 4/23/14
395	1.7.1.4	Modify EBT Modules as Necessary	10 days	Thu 4/24/14	Wed 5/7/14
396	1.7.1.5	Transition Testing	29 days	Fri 3/28/14	Wed 5/7/14
406	1.7.1.6	System Capacity Modeling (Stress Testing)	26 days	Thu 4/24/14	Thu 5/29/14
412	1.7.1.7	ARU Testing	12 days	Thu 5/8/14	Fri 5/23/14
416	1.7.2	Final System Test Reports	10 days	Mon 6/9/14	Fri 6/20/14
417	1.7.3	Update Detailed Design Documents	5 days	Mon 6/9/14	Fri 6/13/14

Phase IV – Transition Implementation

Certain tasks in Phase IV will, by necessity begin prior to the completion of Phase III. This will include the key pilot site preparation tasks in the WIC vendor locations and the two WIC clinics. These tasks will

include installing and testing EBT software in the retail locations, training retailers and clinic staff and final deployment of the card production system.

Phase IV will end with the activation of the EBT system and the help desk. "Go live" will take place at 6:00 a.m. on February 17, 2014.

Exhibit 27: Phase IV - Transition Implementation

ID	WBS	Task Name	Duration	Start	Finish
418	1.8	PHASE IV-TRANSITION/IMPLEMENTATION	121 days	Thu 1/2/14	Thu 6/19/14
419	**1.8.1**	**Pilot Site Preparation**	**55.14 days**	**Mon 2/24/14**	**Mon 5/12/14**
420	**1.8.1.1**	**Retailer Relations**	**55.14 days**	**Mon 2/24/14**	**Mon 5/12/14**
430	**1.8.2**	**WIC Pilot Clinics**	**21.5 days**	**Mon 4/21/14**	**Tue 5/20/14**
434	1.8.3	Stage, Inject and Test Software/Train Clinic Staff onsite	1 day	Tue 5/20/14	Wed 5/21/14
435	**1.8.4**	**Install, Test Pilot Equipment (Vendor Locations)/ Train Vendors**	**4 days**	**Mon 5/12/14**	**Fri 5/16/14**
438	1.8.5	Pepare WIC Clinics	10 days	Fri 5/16/14	Fri 5/30/14
444	1.8.6	DE Card Production & Deployment	13 days	Thu 1/2/14	Mon 1/20/14
447	1.8.7	Activate EBT System	4 days	Mon 6/16/14	Thu 6/19/14
462	1.8.8	Activate Helpdesk	2 days	Mon 6/16/14	Tue 6/17/14
466	*1.8.9*	*Go Live (6:00 a.m. CST)*	*0 days*	*Tue 6/17/14*	*Tue 6/17/14*

Phase V Post Conversion/Operations

This demonstration work plan projects a pilot of three months of *successful* operation, followed by a statewide expansion of EBT. Because of the relative size of the state and the nature of the proposed pilot sites, Three months should be sufficient for testing the system.

Similarly, we project that statewide expansion to clients served at the remaining nine WIC clinics will take approximately 40 business days.

Exhibit 28: Post Conversion/Operations

ID	WBS	Task Name	Duration	Start	Finish
467	1.9	PHASE V-POST CONVERSION/OPERATIONS	1263 days	Wed 6/18/14	Fri 4/19/19
468	1.9.1	Ongoing Business as Usual EBT Operations	31 days	Wed 6/18/14	Wed 7/30/14
472	**1.9.2**	**Quality Assurance Pilot Report and Recommendations**	**41 days**	**Thu 7/31/14**	**Thu 9/25/14**
477	**1.9.3**	**Statewide Expansion Plan**	**40 days**	**Fri 9/26/14**	**Thu 11/20/14**
481	***1.9.4***	***State/FNS Approve Statewide Expansion***	***0 days***	***Thu 11/20/14***	***Thu 11/20/14***
482	***1.9.5***	***Statewide Expansion Begins***	***0 days***	***Mon 11/24/14***	***Mon 11/24/14***

Phase VI – End of Contract/Transition Out

The final phase of the 2-5 Year Plan involves preparation for a successor EBT system, if necessary. It sets aside six weeks for the state agency to begin the transition to a new contractor (assuming that the state elects not to host its own system), and to consider technology changes that may require updates to the EBT system.

Exhibit 29: Phase VI - End of Contract Transition Out

ID	WBS	Task Name	Duration	Start	Finish
483	1.9.6	PHASE VI-END OF CONTRACT/TRANSITION OUT	31 days	Fri 3/8/19	Fri 4/19/19
484	1.9.6.1	Meet with New Contractor, if applicble	1 day	Fri 3/8/19	Fri 3/8/19
485	1.9.6.2	Provide File Formats	1 day	Fri 3/8/19	Fri 3/8/19
486	1.9.6.3	Define Implementation Issues	1 day	Fri 3/8/19	Fri 3/8/19
487	1.9.6.4	Resolve State-specific Issues	10 days	Fri 4/5/19	Thu 4/18/19
488	1.9.6.5	Follow up Meeting	1 day	Fri 4/19/19	Fri 4/19/19